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ABSTRACT

This step-by-step manual presents a problem-solving technique for developing or improving educational programs. Used in Michigan by more than 40 school districts, the process is intended for use by school district curriculum development committees, curriculum selection committees, or other groups--especially those with individuals who have conflicting concepts of educational program improvement. Each chapter addresses one major component of the project: problem-solving framework, goal setting, needs assessment and objective setting, identification of alternative solutions, and solution selection and implementation. Practice exercises and worksheets are included to help users set goals; determine priority needs and related objectives; identify, review, and select from among alternative solutions; and develop plans for implementation and evaluation. Although the examples used throughout the manual focus on career education, the procedures outlined are applicable to any curriculum area. An 87-page bibliography covers general needs assessment and needs assessment for career education, for community colleges, and at the county, state, and university level. (Author/JM)

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problem-solving

A Practical Guide To Attaining Goals

EA 012 350

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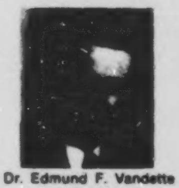

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Michigan Department of Education
Lansing, Michigan

1979

Dear Colleague,

This book is about how to be more effective -- as an individual problem-solver and as a member of a problem-solving group. It is intended for people in any number of different community roles: teachers and learners, parents and children, employers and employees, school administrators and faculty members, and many others in the community.

The book grew out of the Michigan Department of Education's contract with the National Institute of Education (N.I.E.) and the creation of a project on Career Education Dissemination (CEDISS). One of seven projects funded by N.I.E. and the only one dealing entirely with Career Education, CEDISS is operated by the Office of Career Education of the Michigan Department of Education. The experiences in using the problem-solving model presented here, gained over several months by Project CEDISS and Wayne County Intermediate School District's Project VALUE, provide the basis of this action-oriented guidebook on problem-solving.

There are two major sections of the book. In the first, there is an introductory chapter which presents a look at the overall matter of problem-solving, followed by an overview of our problem-solving model. The second section describes in a step-by-step manner how to use the model.

The model itself is designed to be simple to use, but efficient and effective. It also is designed for use in solving a great number of different types of problems, large or small, which may be faced by school districts or specialized groups in these or other communities.

As you study and apply the model, you may have some ideas of your own to suggest. When you do, we'd like to hear from you.

Office of Career Education
Michigan Department of Education

March, 1979

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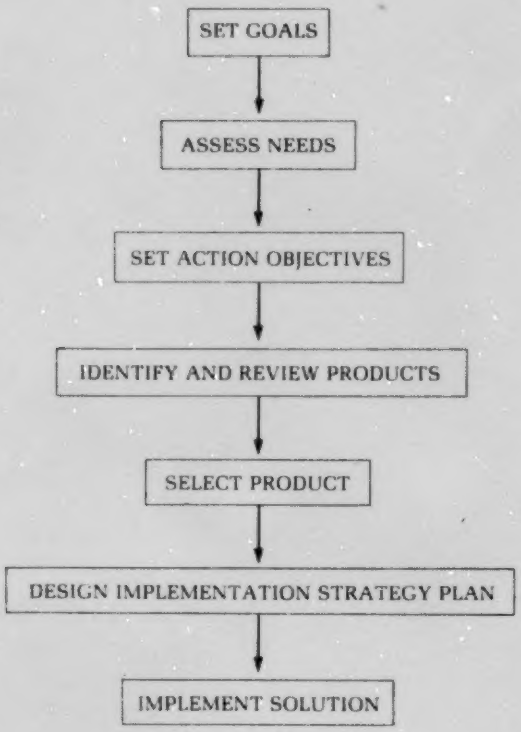
THE PROBLEM SOLVING MODEL


SET GOALS
ASSESS NEEDS
SET ACTION OBJECTIVES
IDENTIFY AND REVIEW PRODUCTS
SELECT PRODUCT
DESIGN IMPLEMENTATION STRATEGY PLAN
IMPLEMENT SOLUTION

Chapter 1

Framework for Problem-Solving

1

What is a problem?

A problem is a discrepancy between the status quo and an ideal: some difference between what *is* and what *ought to be*.

Another way to define the word "problem" is to say that a problem is an intricate, or complex, question about why something isn't the way it should be.

If someone asks "Why can't I seem to save any money?", the existence of a problem is suggested. Having a financial nest egg is the desired state of affairs, an ideal, or the way things ought to be. Not tucking something aside from every paycheck appears to be the current situation. If the ideal and the actual situations are not the same, or equal (as they never seem to be), a problem exists -- at least in the view of the would-be saver.

A problem is the link between the "here and now" and a future state which is thought to be a better one. A problem exists when things are one way and someone thinks they could be some other way.

Does that mean all problems basically are alike?

Two problems rarely are exactly alike, although it is possible to categorize problems as one of two basic types:

1. **Functional problems** involve physical or operational factors, such as the performance of a car engine, the size of a school budget, the way a check is processed through the banking system, or how a test is designed, administered, and graded.

2. **Human problems** involve individual psychological factors, such as a person's perception, or mental image of what is and what ought to be, or differences between how two or more people view what is and what ought to be. These perceptions arise out of internal factors in individuals: from their goals, needs, expectations, beliefs, attitudes, levels of knowledge, and other internal resources. Often, these internal resources are quite different from person to person.

Many problems begin as functional ones but soon turn into human ones as well, as individuals begin drawing upon their own internal resources and any number and variety of external resources or standards in attempting to solve the problem.

What happens to problems?

The biggest myth about problems is that left alone they will go away. If a real problem exists, it never solves itself. Some problems may seem to disappear for a while, but they are sure to reappear in another way (or magnified in significance) on some other day.

The huge branch of an oak tree, hit by lightning, may be able to heal the wound. The problem isn't solved without some effort on the tree's part, however, even if this effort is not visible to humans. Furthermore, the branch now has been weakened and the problem may reappear as a wind storm reopens the wound and the branch cracks and falls from the tree.

Only one of two things ever can happen to a problem: (1) it gets solved through some human or other effort or (2) it turns into a crisis. A crisis is a problem which cannot wait a moment longer before being solved in some way. There's an old saying which seems to hold true every time about problems let go until they are crises:

> *The biggest problem in the world*
> *Could have been solved when it was small.*

Problems get more complex or more serious or involve more people if action is not taken at an early point to solve them.

There's another thing that often happens to problems if they are not solved while they are small. The larger problems become, the more expensive they are to solve in terms of human energy, skills, money, or other resources.

Will I know one when I see it?

"There are no problems, only opportunities", some say. That's a perfectly acceptable viewpoint. Problems may be viewed as either threats or opportunities in the environment. Considering a problem as an opportunity rather than as a threat is a positive way of approaching problem-solving: fine for some but not necessarily appropriate for all.

Regardless of approach, before one can begin tackling a problem, it is necessary to determine if it is a problem or only a symptom. A symptom is some overt event or visible evidence that indicates a problem exists. Attempting to solve symptoms rather than problems can create much "wheel spinning" and provide the potential for coming up with faulty solutions.

When someone wakes up one morning feeling "achy" and "feverish," those are symptoms. If the symptoms persist, the person may go to a physician and describe the symptoms. Based on these symptoms, the physician could make a diagnosis of the underlying problem. Because several different illnesses can have the same symptoms, the physician may want to take some tests to identify the specific illness, the real medical problem. The simple cold, arthritis, polio, and other medical problems, or illnesses, all may have initially similar symptoms. One of the major skills a physician learns is how to distinguish between symptoms and the physical problems causing them.

By treating the symptom, not the true problem, the outcome may not be at all that which is intended. Distinguishing symptoms from problems largely is a diagnostic process, always keeping in mind that problems can have many different symptoms and similar symptoms can be caused by many different problems.

Symptom	**Possible Problem**
Employers are not hiring the graduates of this school.	The students of this school do not have the skills required by local employers.
Students do not "pay attention" in class.	Students do not see any "real world" application of course content.
Voters in this district vote down every school bond issue.	Voters are not convinced that schools need additional funds.

When a problem exists, someone usually knows it is there. Problems create a dissonance, or disturbances, in the environment. Like human illnesses, all types of problems often let themselves be known in the form of symptoms. Before beginning to come up with possible solutions, a good problem-solver makes sure the real problem is identified. *In the model presented in this guidebook, there are some built-in checks to assure that problems are correctly identified.*

How do problems get solved?

In 1855, Robert Browning, the poet, described in one of his poems a way to begin problem-solving. About 125 years later, the **Harvard Business Review** (HBR), a magazine about management, prescribed in one of its articles the same way to get started. This neither implies that 19th Century poets were visionaries nor that certain 20th Century business schools have all the answers. It does indicate that over the years there has been some agreement in many different fields about how to get started on solving problems.

A first step is to identify the desired future or ideal state of affairs, keeping in mind, as Browning cautioned, "our means," or what **HBR** calls "available resources." A second step is to identify the current state of affairs. These two activities provide the foundation for the problem statement.

Where do we want to be at some given point in time, realistically taking into account our skills, time, and other available resources, along with developing a practical way to determine if we're getting there? How does that ideal state compare with the current state of affairs?

That is the basic problem-solving framework: (1) a statement of a desired future state, (2) a clear and accurate statement of the status quo, (3) a list of the resources needed to get to there from here, and (4) methods of keeping ourselves on course and telling us when we have reached our destination successfully.

Another way to view this framework is as a series of interrelated parts. **Goals** point us in a general direction. **Needs** distinguish between the current state and the desired one. **Objectives** provide a specific course of action and also establish a way of measuring effectiveness. **Criteria** help in specifying key resources needed all along the way. **Evaluation** is the process of analyzing how well things are going.

Approaching problems practically

As almost everyone knows who has set out to solve problems, it is not always an easy task. Problems can be approached from so many different directions and there often may be complex ramifications of alternate solutions. This is where *models* become helpful.

Models. A model is a visual representation -- using words, pictures, or other things -- of something which exists in the real world. A model makes it easier to conceptualize relationships between things.

The scale model of a large ship allows us to examine the total ship and its parts up close, something difficult for a person to do if the real ship is as large as the QE-II. Another type of model is a map, allowing us to examine the relationship of cities, mountains, rivers and lakes, and other components.

There also are mathematical models, as well as models using words to describe how something operates. In this book, we are concerned with a model of how problem-solving works.

Problem-solving Models. There are many problem-solving models. One perspective, or model, of problem-solving, for example, is the *reflective thinking*

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approach, which calls for defining the problem, analyzing causes, suggesting possible solutions, comparing solutions, and analyzing likely outcomes of the apparent best solution. Another model is the *creative thinking approach*, requiring preparation (immersing oneself in all aspects of the problem), incubation (turning away from the problem for a while to let possible solutions "jell"), illumination (receiving sudden inspiration), and verification (comparing the creative new solution to other possible solutions).

The *business management approach* involves analyzing current strategy in terms of the total environment, considering the competitive ramifications of continuing current strategies or developing new ones. External trends and developments must be studied and assumptions made about the outlook: the shape of the future, actions of others, and impact of change on the system. Internal operations must be examined in depth, including availability of resources to handle planned change. As alternate solutions to problems are identified, they must be carefully analyzed for significant weaknesses or under-utilized strengths.

These approaches, as well as other problem-solving techniques, can result in imaginative, expedient, far-reaching, and efficient decisions. They also, however, may be very time consuming and expensive, sometimes requiring either high and sustained creativity or complex computer analysis of data. An approach may work well for one type of problem but not for others.

These are some of the reasons why *goal-centered models* have won such wide acceptance. The problem-solving model presented here, for example, can work very effectively and efficiently on both a small or large scale and be applied to many different types of problems. It may be used by individuals working alone or together in groups. The model also has applications not only in solving career education problems but in other educational areas as well.

What happens when people sit down together for problem-solving?

Whenever two or more people begin working together to solve problems, the potential exists for conflict. The conflict first may arise when the discussion gets around to what the ideal future state should be. This is a symptom that different perceptions exist as to the exact nature of the problem. Without agreement on the problem, agreement on possible solutions will be virtually impossible.

Scope. Nearly anyone can sit down and list far more concerns -- problems -- than he or she has the resources to work with. A group with an agenda which has too broad a scope compounds its potential for conflict and also runs a risk of frustration in not being able to successfully solve every problem identified and every goal set.

To limit scope, each person begins by listing all concerns or problems related to a particular issue. These then are ordered in terms of priorities: the most important, followed by successively less important concerns. The highest priority individual concerns then are presented to the group, at which point the group as a whole re-orders them in order of priority acceptable to the entire group. Similar techniques will be used at various steps in using the problem-solving model itself.

Consensus. In the transition from individual to group efforts, it often may be important to strive for a special kind of group agreement called *consensus*. It is another technique to help reduce the potential for conflict.

To achieve consensus, everyone must be able to paraphrase the issue under consideration. Everyone also must have a chance to describe his or her feelings about an issue and present his or her highest priority concerns. Finally, those who continue to disagree or have doubts nevertheless must agree publicly that they are willing to accept the group decision until further evaluation calls for reconsideration.

Consensus is a condition in which every member is willing to go along, even if all do not agree, without sabotaging the decision. This doesn't mean the decision represents everyone's first choice. It does mean that a sufficient number of members are in favor of it to carry out the decision, while others understand what is happening and will not obstruct activities.

In other words, as the group lists concerns and places priorities on them, not all may agree the list is complete or agree with the order. But all will agree to work together under existing conditions. Consensus is different than compromise which seeks some position acceptable to all or, at least, not too offensive to any. Consensus helps preserve the structural and content integrity of what many members of a group feel is the best statement of a problem, goal, objective, or solution.

Goals. A goal is a general statement of a desired outcome, some desired future state of affairs which people working together will attempt to attain. **A goal establishes an end product** .

Goals have a number of characteristics. First, they represent an image of the future which is the image of those people who set the goals, not necessarily everyone affected by the goals. Second, goals are subject to change as conditions in the environment change. Third, goals constitute a source of legitimacy which justifies the activities of those striving to attain the goals.

Because goals tend to justify activities, some organizations may have two sets of goals: *stated* and *real* goals. While the real goal of a profit-making corporation may be simply to make a profit, this may seem cold and crass; thus, the stated goal may deal more with investor equity, growth and development, rewarding employee efforts, and serving customers. Stated goals usually are written down and available for public scrutiny. Real goals are those future states toward which a majority of a system's human and financial resources are committed. The two may be the same or different.

Because of these and other inherent characteristics of goals, it becomes particularly important that goals be understood by all who are participating in working toward them and those to be affected by the goals. There must be consensus about the goals. Goals must be flexible, and they must be measurable in some way. Most goals also will be relatively long-range.

The effectiveness of a group is determined by the degree to which goals are actually realized. Efficiency, on the other hand, is measured by the amount of resources used to produce a unit of output. Output is related to goals, but not identical. Some groups, for example, may have highly efficient output but never reach their goals. Depending upon the nature of the output, this may not necessarily be a bad state of affairs. Goals, in other words, should not be "etched in stone" but should be viewed as a focus for energy and a general direction.

Needs. Most problem-solving groups are formed to consider problems existing in a larger population. An early effort of the group, thus, must be to go out into that larger population to determine existing conditions, as well as to make sure that the concerns voiced by group members represent those of the larger community which it serves.

This often is called a *needs assessment*. This is nothing more **or less** than finding out what those who will be ultimately affected think needs to be done and how it should be done. A key element is identifying all who are or will be affected by the problem and/or its solutions.

If the issue is career education, those people affected by group decisions might include employers, future employees/current students, teachers, parents, and many others. All of their concerns regarding the issue must be taken into account both to help determine goals and to identify the status quo.

Problem statement. Good statements of problems are a natural extension of good needs assessments; many times the two are the same. A useful problem statement summarizes major concerns expressed by the community, identifies symptoms of the problem, and provides direction toward solutions. Such a statement also is specific and only covers one issue.

To arrive at a good problem statement, several questions are asked. *What is the nature of this problem or need? Who is affected by it? Why has the problem occurred? How or by whom is the problem caused? How might the problem be solved? When must the problem be solved?*

One way to view the relationship of some of the key elements of problem-solving is to view them as a kind of mathematical formula:

$$\begin{array}{l} \quad\text{Goal} \\ -\ \text{Status Quo} \\ \hline =\ \text{Need}\end{array} \qquad\qquad \begin{array}{l} \quad\text{Status Quo}\\ +\ \text{Solution}\\ \hline \quad\text{Goal}\end{array}$$

In other words, by meeting certain needs which exist in the status quo, a future, ideal state should be reached. Or, given a problem and an appropriate solution, it should be possible to achieve pre-established goals.

Objectives. An objective establishes a means or process for reaching a goal. An objective takes into consideration the goal and the problem, as well as the un-met needs or solution to the problem.

Objectives differ from goals in that objectives are statements of ways to achieve goals. They are highly specific and they usually are short-term. In addition, objectives set standards of achievement and establish fairly precise conditions of evaluation. Goals identify an ultimate destination. Objectives lay out a road map for getting there.

Together, goals and objectives provide good management, direction, and a basis for decisions; they point out where you are going and how to get there.

A practical, step-by-step problem-solving model

Some people relish problems and have highly developed problem-solving abilities. These people, a relatively small percentage of the total population, often are called innovators. They thrive on change and, even more so, on creating new ways to achieve it.

Most people, however, sometimes approach change with somewhat less complete and open enthusiasm. Nevertheless, we are constantly confronted with problems which require solutions. Inherent in the word "solution" is the necessity for change. That may be called a "triple whammy:" the need to confront a problem head on, create and implement solutions, and accept resulting change. Meeting these challenges never is easy, but there are some techniques for making the task easier.

Problem-solving today must be reasonably systematic: thorough in setting appropriate goals, identifying a problem accurately, determining the needs or concerns of all involved and affected, analyzing alternate solutions, and measuring progress and results. The model presented here recognizes the importance of taking into consideration many factors.

At the same time, there is only a limited amount of time and other resources available today to solve any one problem. Thus, the model is designed to be easy to use, time-saving, economical, and likely to achieve desirable results.

It is a simple model, although it incorporates key elements of problem-solving and decision-making models used in many fields. There are seven basic parts, or components:

Setting Goals

Assessing Needs

Setting Action Objectives

Identifying Alternate Solutions

Selecting a Solution

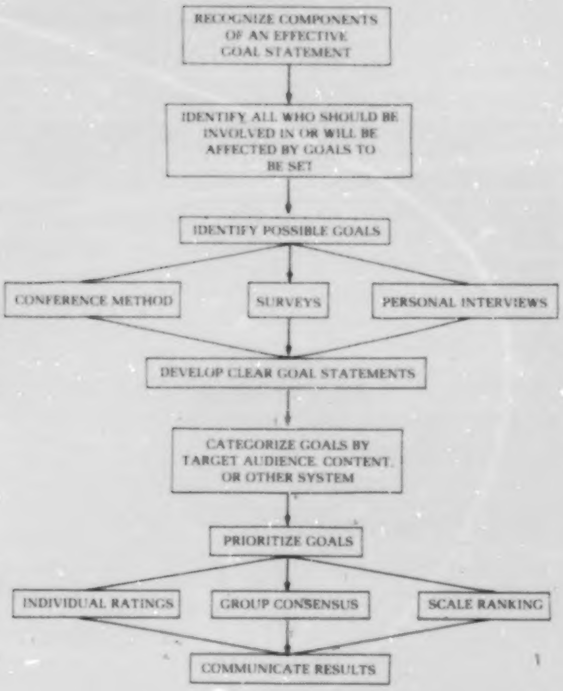
Designing and Implementing a Strategy Plan

Implementing a Solution

Each of the following chapters covers related phases of the complete problem-solving process. Chapters begin with some learning objectives and an overview. These are followed by steps to take, along with definitions of terms and examples of the model in action. Finally, there is a short review and some practice exercises.

Problems are the beginning. The *end* is called the goal, and the *means* is the process, in this case the process of problem-solving. In viewing problem-solving as a process, the old arguments are no longer valid about whether means are more important than ends. The way that things happen is equally as important as what happens.

Problem Solving Model:
GOAL-SETTING COMPONENT


RECOGNIZE COMPONENTS OF AN EFFECTIVE GOAL STATEMENT
IDENTIFY ALL WHO SHOULD BE INVOLVED IN OR WILL BE AFFECTED BY GOALS TO BE SET
IDENTIFY POSSIBLE GOALS
CONFERENCE METHOD
SURVEYS
PERSONAL INTERVIEWS
DEVELOP CLEAR GOAL STATEMENTS
CATEGORIZE GOALS BY TARGET AUDIENCE, CONTENT, OR OTHER SYSTEM
PRIORITIZE GOALS
INDIVIDUAL RATINGS
GROUP CONSENSUS
SCALE RANKING
COMMUNICATE RESULTS

Chapter 2

Setting Goals

2

Using a systems model

DESTINATIONS

When you complete this chapter, you will be able to:

State a definition for the term "goal."

Compare three methods for setting goals.

Distinguish between multi-concept and single-concept goals.

Identify a method for setting priorities.

Apply the first phase of the problem-solving model to set goals and priorities.

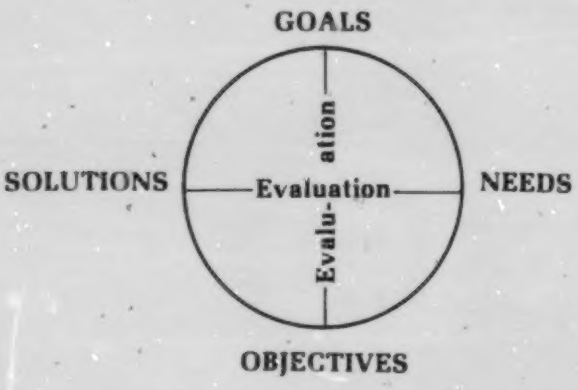
The model presented here essentially is what may be called a systems *model.* This is an approach which views the whole of something by better understanding the relationship of its parts.

A system is a set of interrelated and interdependent parts which interact with each other and with the environment. A school system, for example, is made up of many parts: administrators, faculty, students, buildings, textbooks, and other components. All of these are interrelated or have some special relationship to each other in the system. In addition, the parts also are interdependent in that what affects one may affect others. A teacher cannot teach without students; learners require teachers.

As well as interacting with each other, the parts of the system also interact with the environment and are interdependent with other systems in the environment. Parents must pay taxes so that teachers can be hired; schools must teach skills required by employers. One of the important parts of this problem-solving model is that it attempts not to ignore any one part or even another system.

In a systems model, one does not always have to start at one place or proceed in only one sequence. Sometimes it is possible to start at the middle or end and work forward. At the same time, many things can happen concurrently. In understanding how a car operates, one can begin by learning how the wheels move the car or how the engine moves the wheels.

The problem-solving model we are about to explore is comprised of four basic components, or parts: goals, needs, objectives, and solutions. These are linked together by evaluation methods. Each of the parts is interrelated and interdependent.



The concepts of interrelationship and interdependence of parts are important ones in this model because they indicate that the process of setting goals does not just begin and end but must be accomplished in relation to needs and ultimate solutions. This is why we noted earlier that goals are general, longer-term statements of a future state, along with the fact that goals must be flexible, possibly subject to modification as needs are uncovered and potential solutions are explored. As each step of the model is completed, it becomes important, therefore, to evaluate the progress to date and the direction activities are leading the problem-solvers.

Setting goals

A goal is a general statement of an outcome, or future desired state of affairs, which provides a focus for action.

Broken down, this definition identifies a goal as (1) having as an ending point a state of affairs which we hope is better and probably is different than the status quo, (2) having an ending point which is some distance in the future, and (3) providing some overall direction as to what kinds of activities should be conducted to reach the desired outcome.

What better place to begin the problem-solving process than in knowing where one is headed? By identifying the potential ending point, the goal, some of the groundwork has been laid for the critical step of identifying the status quo, or current needs. In addition, goals make it easier to reach agreement on the precise nature of the problem and even help distinguish symptoms from problems. Goals help provide needed direction to the problem-solving process.

Examples of goals. Because goals are broad, general-purpose statements, they are not hard to write, nor should great amounts of time be devoted to the actual writing of them. Here are some examples of goal statements:

- At the end of the semester, students will have improved coordination and physical strength.
- Students will be able to communicate more effectively after participating in the Interpersonal Skills Clinic.
- Students will understand the general categories of occupations before studying about skills needed in each.

In the last goal above, the outcome or desired future state of affairs is that students will know about different occupations by category. A specific ending point is not indicated, but we know it will be before students move on to studying specific skills needed in different occupations. The overall direction or activities which may be involved to reach the goal are more vague, but we do know that a reasonably complex level of teaching/learning is involved because the word "understand" implies that information will be internalized and converted into a useable form.

Reasons for setting goals. Goals help direct efforts, suggest ways that resources generally might be allocated, and communicate to all involved where they are headed. Goals also provide a basis for future decisions and keep needed further problem-solving activities on track.

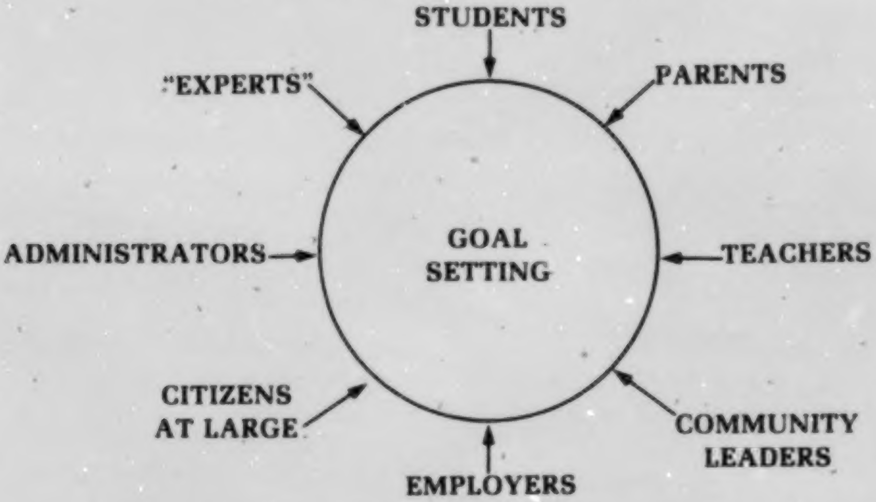
The reason many people shy away from setting goals is that we have been conditioned to believe that once it is written down, one is forever bound to work toward the goal and not to reach a goal is a major personal or other kind of failure. Goals are intended to provide direction, particularly during the initial stages of problem-solving. For those who still insist on etching goals in bronze, the best advice is to wait until the conclusion of working through the model presented here!

Who should develop goals?

The answer to this is simple and somewhat rigid. The people who develop goals should include individuals representing **all** groups which will be affected by the outcomes and ways of reaching the goals.

If a problem involves career education, for example, some typical groups which should be included in goal-setting are illustrated below. Each of these groups, of course, can be broken into many sub-groups, depending upon the size and complexity of the community and the breadth of the problem to be solved.

Individuals or groups to involve in the goal-setting process



Why involve others?

Everyone is familiar with all the disadvantages of "doing things by committee." It takes more time and effort, and attention must be given to making sure that all voices are acknowledged. There are, however, several advantages of involving a variety of interests and skills in the problem-solving process:

- When those who will be affected by solutions to problems or implementing solutions are involved in the entire problem-solving process, the likelihood of their commitment to "making it work" will be greatly strengthened.
- Involvement provides very useful information about the opinions of members of the group, as well as information about the nature of the problem and ramifications of alternate solutions.
- When all members of the system are involved, better understanding about priorities and implementation problems is achieved. This helps reduce the potential for conflict.
- Involvement in the problem-solving process permits greater awareness in the system's total environment of all decisions and actions, along with better understanding of the reasons for taking certain steps toward solving the problem.

Once those participants who should be involved in the processes necessary to effectively achieve a goal have been identified, selected, and integrated into the problem-solving group, there are a number of techniques which can be used to begin identifying goals,

What techniques can be used to identify goals?

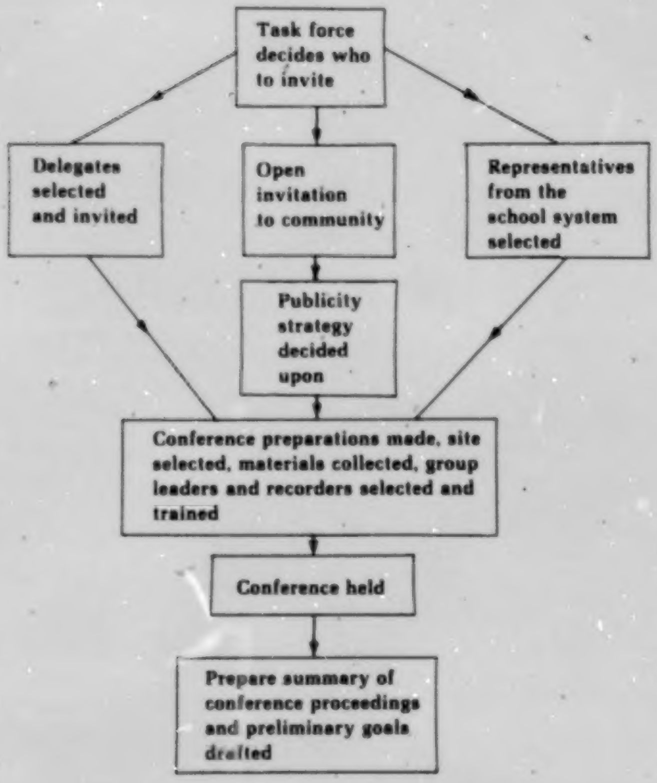
Often the problem-solving process begins when a few individuals concerned with a particular problem get together to work toward solutions. Or, they may be assigned to be part of a *task force* to work on solutions.

One of the initial steps is to come up with some clear statements of goals which are or will be widely accepted by all members of the system. Three alternate techniques of identifying goals are discussed here: a conference, a survey, or in-depth interviews. Each of the techniques is compared by definition, purpose, advantages and disadvantages, appropriateness, and procedures. Which technique is selected will depend upon the availability of necessary resources and the stage at which the problem-solving process has reached.

1. **The Conference**. This technique brings together representatives from several groups or members of the system to generate possible goals and reach consensus on specific problems. Various needs and possible solutions to the problem also may be identified at the meeting.

   The procedures are relatively simple and familiar. A committee or task force decides all in the community or system who should be invited, a meeting time and place is established and physical arrangements completed, and methods of recording information presented at the meeting are formalized. Usually the meeting begins with a simple statement of the problems or initial goals perceived by the organizing group. All who attend the meeting are encouraged to voice their opinions. These procedures can be illustrated the in form of a model showing general tasks to be performed:

CONFERENCE TECHNIQUE


Task force decides who to invite
Delegates selected and invited
Open invitation to community
Representatives from the school system selected
Publicity strategy decided upon
Conference preparations made, site selected, materials collected, group leaders and recorders selected and trained
Conference held
Prepare summary of conference proceedings and preliminary goals drafted

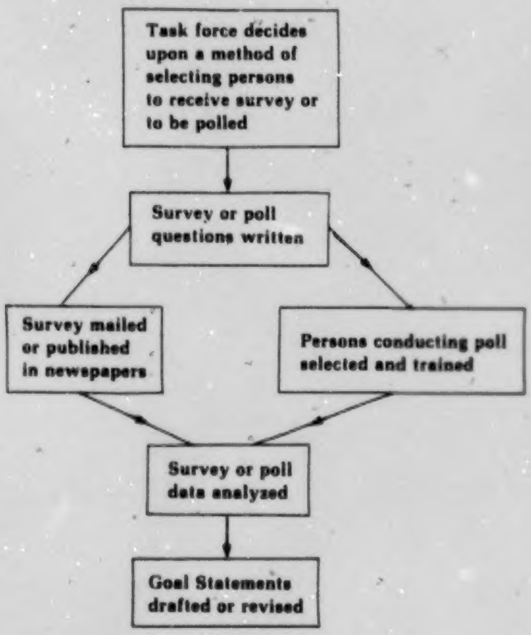
The conference or large meeting can be a very efficient way to bring together a large number of people, although it does present all the problems characteristic to conducting a large meeting, including obtaining minority opinions and effectively reaching consensus in a reasonable amount of time. (A comparison of all three techniques is made at the end of this section.)

2. **The Survey or Poll Technique.** One of the great advantages of this technique is the ability to reach a large number, perhaps everyone in the entire system, inexpensively. On the other hand, the method has several inherent weaknesses in identifying goals. The questionnaire may have to be relatively long and will require careful wording, ideally by a professional survey designer. Another problem is obtaining a true representation of the system in returned questionnaires. The mailed survey may be a more effective tool for obtaining opinions of already-established goals than in obtaining input useful for establishing goals initially. A typcial approach is to make a goal-related statement and then ask survey participants to indicate the degree to which they agree or disagree with the statement:

Development of certain clerical skills such as typing, filing and use of office machines is highly desirable for all students before graduating from local schools.

Strongly Agree				**Strongly Disagree**
5	4	3	2	1

SURVEY MODEL

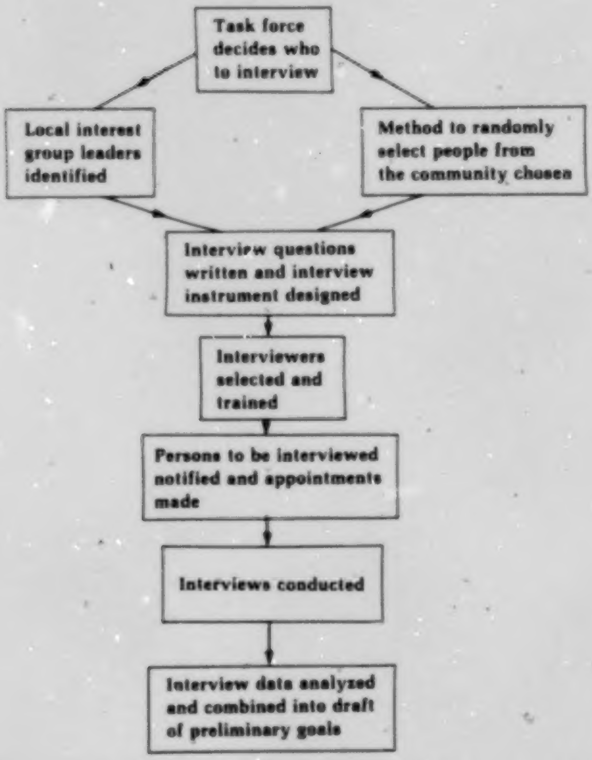

Task force decides upon a method of selecting persons to receive survey or to be polled
Survey or poll questions written
Survey mailed or published in newspapers
Persons conducting poll selected and trained
Survey or poll data analyzed
Goal Statements drafted or revised

3. **Personal Interviews**. Like the conference technique, personal interviews can be used to identify goals as well as needs. In addition, like the survey method, it also is useful in obtaining opinions of goals once they are established. It is a versatile technique but perhaps the most expensive in terms of time and personnel required.

   Essentially, this technique requires conducting personal interviews with members of the system, each interview structured according to pre-established questions. It does provide the greatest depth of information. Like the survey method, it requires valid methods of gaining input from a representative sample of the *total universe*, or all members of the community or system involved in the problem.

   Tasks are summarized in the following model:

PERSONAL INTERVIEW TECHNIQUES


Task force decides who to interview
Local interest group leaders identified
Method to randomly select people from the community chosen
Interview questions written and interview instrument designed
Interviewers selected and trained
Persons to be interviewed notified and appointments made
Interviews conducted
Interview data analyzed and combined into draft of preliminary goals

COMPARISON OF INFORMATION-SEEKING TECHNIQUES

	CONFERENCE	SURVEY	INTERVIEWS
DESCRIPTION	Representatives of several groups assemble for general meeting.	Questionnaires on subject matter sent to representative community sample.	Series of one-on-one meetings or interactions held between interviewer and community representatives
PURPOSE	To generate goals and identify needs, as well as to reach consensus.	To evaluate a preliminary set of goals or statements of problems and needs.	To generate goals and/or to evaluate a preliminary set of goals or statements of problems and needs.
ADVANTAGES	Allows for interaction between participants. Easy and inexpensive.	Has potential for reaching largest number of people for low cost. Helps obtain minority opinions.	Flexible and provides greatest amount and depth of information.
DISADVANTAGES	All who should be involved may not attend. Minority opinions may be hard to obtain.	Requires careful design of questionnaire; responses must be representative of entire community for validity.	Time-consuming and requires well trained interviewers. It may be difficult to get a representative sample.
WHEN USEFUL	When it is desirable to generate a complete list of possible goals from representative members of the community.	To get reactions from a large number of community members on goals.	To get reaction to and evaluation of goals, as well as additional opinions on goals, needs, problems, and possible solutions.

COMPARISON OF PROCEDURES

CONFERENCE	SURVEY	INTERVIEWS
Identify participants.	Identify participants and select sample size.	Identify participants and select sample size.
Arrange for facilities	Select mail or other method.	
Publicize meeting.		
Create agenda.	Design survey questionnaire.	Develop questions and interview techniques.
Select group facilitators and organize system for recording opinions.	Produce survey materials.	Train interviewers and devise system of recording responses.
Hold meeting.	Distribute survey.	Conduct interviews among representative sample.
Produce information obtained in a useable form.	Collect survey responses and tabulate responses.	Consolidate information obtained in a useable form.
Analyze data.	Analyze data.	Analyze data.
Prepare and distribute summary report.	Prepare and distribute summary report.	Prepare and distribute summary report.

What goals can be accomplished?

Once a representative group has identified goals upon which most members can agree, it is important to step back and assess just how attainable those goals may be.

Any goal which contains more than one concept is apt to present some problems later on. Here are some examples of multi-concept goals:

- Students will develop skills in math, reading, and science.
- Students will develop decision-making and goal implementation skills.
- Students will develop self-awareness of personal aims and goals for themselves and others.
- The school district will assure the development of youth who have self-respect, respect for others, and respect for the law.

In effect, each of the statements above contains more than one goal. Developing student skills in math may be a goal which will involve one group of people to accomplish it, while developing skills in reading may require different people and approaches. With a multi-concept goal, it is difficult to assign responsibility for accomplishing it, along with measuring progress toward its attainment. *Do not try to accomplish more than one thing per goal!*

A single-concept goal simplifies matters considerably. Single-concept goals are more easily understood and more easily transformed into objectives which have specific action as their end result. Each of the multi-concept goals above can be restated into single-concept goals:

- Students will develop skills in math.
- Students will develop decision-making skills.
- Students will develop self-awareness.
- The school district will develop a self-awareness program.

The primary purpose of writing down goals is to indicate the outcome or desired future state of affairs. While goals should be kept simple, general, and with single concepts, some believe that a good goal statement also should be somewhat more specific than the goal statement above in specifying the audience, the ending point, and indicating (but not prescribing) a broad course of action. Thus, one might expand one of the statements above by making it somewhat more specific than it is now:

- Upon completing 12th grade,	*(ENDING POINT)*
all students	*(TARGET AUDIENCE)*
will have developed mathematical skills	*(FUTURE STATE)*
which are necessary for everyday living	*(FOCUS OF EFFORT)*

The focus of efforts in reaching the goal gives some indication of the kinds of activities which might be taken or expands the statement of the desired future state. The goal *Students will develop skills in math* tends to be so broad, those who are to work on attaining the goal may have to back-track to determine exactly which students and what kinds of skills. A good goal, thus, must give all involved a reasonably clear understanding of the desired intent.

What are ways to categorize goals?

After coming up with good statements of goals, it may be desirable to put them into categories. Some goals, for example, may be directed at the organization while others are directed toward its members. Both goals may be necessary:

- Students will develop self-awareness.
- The school district will develop a self-awareness program.

Students, in other words, may not be able to accomplish a goal set for them unless the school accomplishes a related goal. Categorizing student-focused and institution-focused goals is an organizational method of making sure that goals set in one area are matched, if necessary, by parallel goals in another area. In addition, different approaches will be needed to attain student-focused goals, for example, than for institution-focused goals. Here are some examples of these two categories:

STUDENT-FOCUSED GOALS

- The student will develop a specific occupational skill.
- The student wil become aware of the requirements which are necessary for the occupation of his or her choice.

INSTITUTION-FOCUSED GOALS

- The school district will identify materials for occupational skill development.
- The school district will establish a career awareness program.

How to set goal priorities

Once goals have been identified by a representative sample of all who will be involved in working toward attaining them and all who will be affected by their accomplishment, clearly stated, and categorized, a next step is to establish priorities. This also is a management technique for organizing goals in logical sequence and gaining consensus on which goals should receive major attention.

There are two steps in setting goal priorities:

1. **Rate individual goals**. This involves some system for actually ranking goals in order of the most important first through the least important.
2. **Analyzing and reporting rating results**. This largely will depend upon the method used for rating and the group doing the rating.

The final list of prioritized goals forms the framework for further activities in the problem-solving process. Many methods are possible in accomplishing this task. Three are described here:

1. **Card sort.** Using this method, each goal is written on a separate card and a set of goal cards prepared for each member of the task force or goal-setting committee. Each person then arranges the cards in the order that he or she feels they are in importance. Finally, the cards are numbered in order, with number one the highest priority; number two somewhat lower priority; and so on through the whole set of cards.

   The goal with the most number one votes, thus, becomes the highest priority goal. This method of prioritization is prone to some statistical error which must be watched for during the analysis phase.

2. **Consensus**. This method does not involve compromise but obtaining agreement by the largest number of members of a group. Those who diagree nevertheless agree not to sabotage the decision and work of the others in the group. If the group is large, it is best to break it into smaller units of about eight to ten people to establish priorities. The entire group

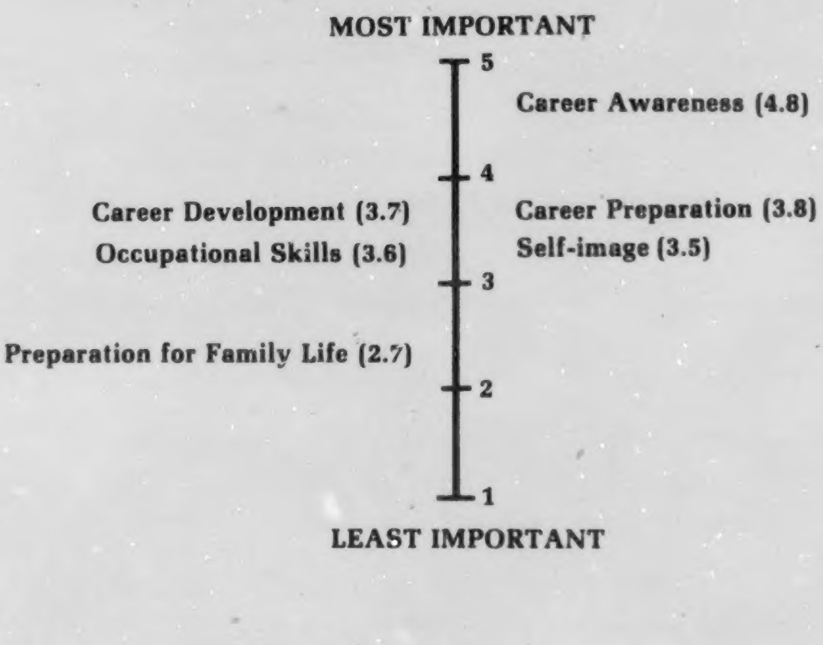
then meets and combines lists, again coming to consensus if necessary on priorities.

Because it is a group effort, this method may be more time-consuming than the card sort (or "private ballot") method. At the same time, it provides an opportunity for discussion and can result in greater harmony of the group and commitment of the group to work toward those goals agreed upon by the majority of members.

3. **Ranking goals on a scale**. This may be the most effective method of setting priorities. The method is based on developing a scale (one to five or one to seven, for example) and then having each member rank each goal. Scores are then tabulated and the average for each goal is placed on a chart. The goal with the highest average is the number one priority. Other goals will fall into place in the same manner. An example of this format follows:

During the next school year, each 10th grade student will develop awareness of careers suitable for themselves.

MOST IMPORTANT 5 4 3 2 1 LEAST IMPORTANT
(Circle One)



Goal setting revisited

This discussion of the process of setting goals suggests the importance of this initial phase of problem-solving. A goal is a general statement of an outcome, or future desired state of affairs, which provides a focus for action. The goal-setting process should include:

- **Inclusion of all members of the community, or system, who will be affected by accomplishment of the goal and involved in work toward its attainment.**

- **Identification of those goals felt to be important to those individuals**. This can be accomplished by meetings or conferences, surveys, or personal interviews. If groups in similar communities or systems already have worked on a similar problem, it also can be useful to look at the goals they established.

- **Development of clear goal statements**. A goal statement which is understandable to most who will be involved usually will identify the target audience or organization, the desired end state of affairs, an ending point, and a general direction which can be taken toward attaining the goal.

- **Categorization of goals by target**. Goals may be categorized by individual or organization, for example, or perhaps by subject matter.

- **Prioritization of goals in order of perceived importance**. This can be accomplished by individual number ordering, group consensus, or ranking goals on a scale.

It may be possible to complete several of these steps at one time, or a variety of techniques can be used over time. Available resources, complexity of the problem, and other factors will determine the extent to which these steps are followed and in what order. The precise approach used perhaps is less important than making sure that each principle is applied to establish goals which are clear, supported by most members of the system, organized by category, and ranked by priority.

Gaining support for goals

The steps outlined above are designed to help obtain wide-spread support for the project as it progresses. At the conclusion of the goal-setting process, however, it is very important to produce a report on the activity. This report, then, should be disseminated to all involved in the goal (and in the process of setting it). These reports may take different forms, including oral reports at meetings, news articles in appropriate media, mailings of summaries to community members, and announcing the availability of the complete report for public inspection.

The simplest method of communicating information about the project thus far is to print a report and send it to a selected list of key individuals. This report may only list the final product: the list of goals by priority.

A more thorough report may contain additional elements:

1. Brief explanations of why and how the process was executed.

2. Brief explanations of how to interpret the results.

3. Translation of the data into understandable language.

These kinds of communication efforts help gain support for the goals while also obtaining additional information regarding the goals and the priorities established for them. One way to graphically display the goals and their priorities is to prepare a chart like the one following. The mean rating of each goal is listed so that it is possible to see not only the rank order but also how closely certain goals are clustered.

GOAL-SETTING

Practice Exercise

The following is a practice exercise for following through the process of setting goals.

Purpose of practicing setting goals

This exercise has two main purposes:

1. To provide practice in the steps required to develop, subdivide and categorize, and prioritize goals.

2. To provide a means for exploring the dynamics of team decision-making.

This practice activity requires one or more teams of about five to eight persons per team. Ideally, each team should be seated around a table which allows face-to-face contact of each person with each other team member. Sample forms are provided on the following pages and should be produced in quantity for use by the team. It is not necessary to have a team leader, although one person should be chosen as a "recorder."

How to do the practice exercise

1. Each member of each team is given a copy of Form A and instructed to individually prepare a list of goal statements aimed at solving a specific problem or covering a specific area of career education related to the team's school district, school, or grade level. Allow about 20 to 30 minutes.

    a. Team members should be instructed to keep their goal statements short and simple.

    b. Components of a good goal statement include the target audience, desired future state (what "ought to be"), ending point, and a broad suggestion of an overall approach in reaching the goal.

2. After team members have completed writing their individual goal statements, the members should discuss their goal statements and then begin to determine which should be included in the final list for the entire group. When all members agree that a goal should be added to the final list, it is written down by the recorder on Form B. Allow about 30 minutes.

    a. The first task of the team working together is to arrive at consensus on which goals should be included on the final list. (Use Form B for this purpose and limit the total number of team "consensus" goals to six.)

    b. Once the consensus goals have been written down, all members of the team must agree to support the goals at least for the time being or, at minimum, agree not to sabotage the efforts of the team working as a whole toward attaining the final team goals.

3. The next task of the team is to determine the relative importance of the list of final, "consensus" team goals. For this task, each team member is given a copy of Form C. Allow about 20 minutes.

    a. Each member should write down the list of the team's goals on Form C.

    b. Each member then individually rates each goal on the scale of one to five, according to degrees of importance.

4. The team members' rankings of each goal on Form C then is collected. Form D provides an example of the mathematical process for accomplishing the task of finding the raw score for each goal.

5. The final task is to list the goals in the rated order from first, or top priority, to sixth. This information then is communicated to the team on Form E, the feedback to the team on their efforts.

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FORM A

INDIVIDUAL GOAL STATEMENTS

Date ______________________ Team Member ______________________

Once the team has selected a problem area or topic, list below up to six goals related to that general subject area as it relates to your school district, school, or grade level. Remember that a good goal statement is simply stated and general in nature but does indicate the target audience or organization, the desired future state of affairs (what "ought to be"), an ending point, and possibly a broad suggestion of an overall approach in reaching the goal.

GOAL #1:

GOAL #2:

GOAL #3:

GOAL #4:

GOAL #5:

GOAL #6:

FORM B
TEAM CONSENSUS WORKSHEET

Use this form to list goals upon which a majority of team members agree should be the team's goals. (Note goals are not listed in any particular order at this point, but randomly as they are agreed upon.)

TEAM GOAL #1:

TEAM GOAL #2:

TEAM GOAL #3:

TEAM GOAL #4:

TEAM GOAL #5:

TEAM GOAL #6:

FORM C

GOAL RANKING SHEET

Date ______________________ Team Member ______________________

On this form, list each of the goals upon which the team members have agreed are the six "consensus" team goals. Then rank each goal in terms of how important you feel it to be.

GOAL STATEMENT	DEGREE OF IMPORTANCE				
	MOST				LEAST
GOAL #1: ______________________ ______________________ ______________________	5	4	3	2	1
GOAL #2: ______________________ ______________________ ______________________	5	4	3	2	1
GOAL #3: ______________________ ______________________ ______________________	5	4	3	2	1
GOAL #4: ______________________ ______________________ ______________________	5	4	3	2	1
GOAL #5: ______________________ ______________________ ______________________	5	4	3	2	1
GOAL #6: ______________________ ______________________ ______________________	5	4	3	2	1

FORM D

MATHEMATICAL WORKSHEET

Use this form to compute the raw score for each goal as ranked by individual members. The formula is as follows:

1. Multiply each ranking (1 through 5) by the number of people who ranked the goal by that value. (For Goal #1, count the number who ranked it at a "5." If there were four people, multiply 5 x 4.)

2. Add the products to give a total.

3. Divide the total by the Number of team members responding to that goal's ranking. The raw score is the group ranking of the goal. The goal with the highest raw score, thus, is of the highest priority.

GOAL #1:
5 x (   ) =
4 x (   ) =
3 x (   ) =
2 x (   ) =
1 x (   ) =
TOTAL: ____ ÷ (   ) = ______

GOAL #2:
5 x (   ) =
4 x (   ) =
3 x (   ) =
2 x (   ) =
1 x (   ) =
TOTAL: ____ ÷ (   ) = ______

GOAL #3:
5 x (   ) =
4 x (   ) =
3 x (   ) =
2 x (   ) =
1 x (   ) =
TOTAL: ____ ÷ (   ) = ______

GOAL #4:
5 x (   ) =
4 x (   ) =
3 x (   ) =
2 x (   ) =
1 x (   ) =
TOTAL: ____ ÷ (   ) = ______

GOAL #5:
5 x (   ) =
4 x (   ) =
3 x (   ) =
2 x (   ) =
1 x (   ) =
TOTAL: ____ ÷ (   ) = ______

GOAL #6:
5 x (   ) =
4 x (   ) =
3 x (   ) =
2 x (   ) =
1 x (   ) =
TOTAL: ____ ÷ (   ) = ______

FORM E

COMMUNICATION FEEDBACK SHEET

Use this form to list each goal by priority, according to raw score. Distribute one copy to each member of the team.

First Priority Goal: **Raw Score:** ____________

Second Priority Goal: **Raw Score:** ____________

Third Priority Goal: **Raw Score:** ____________

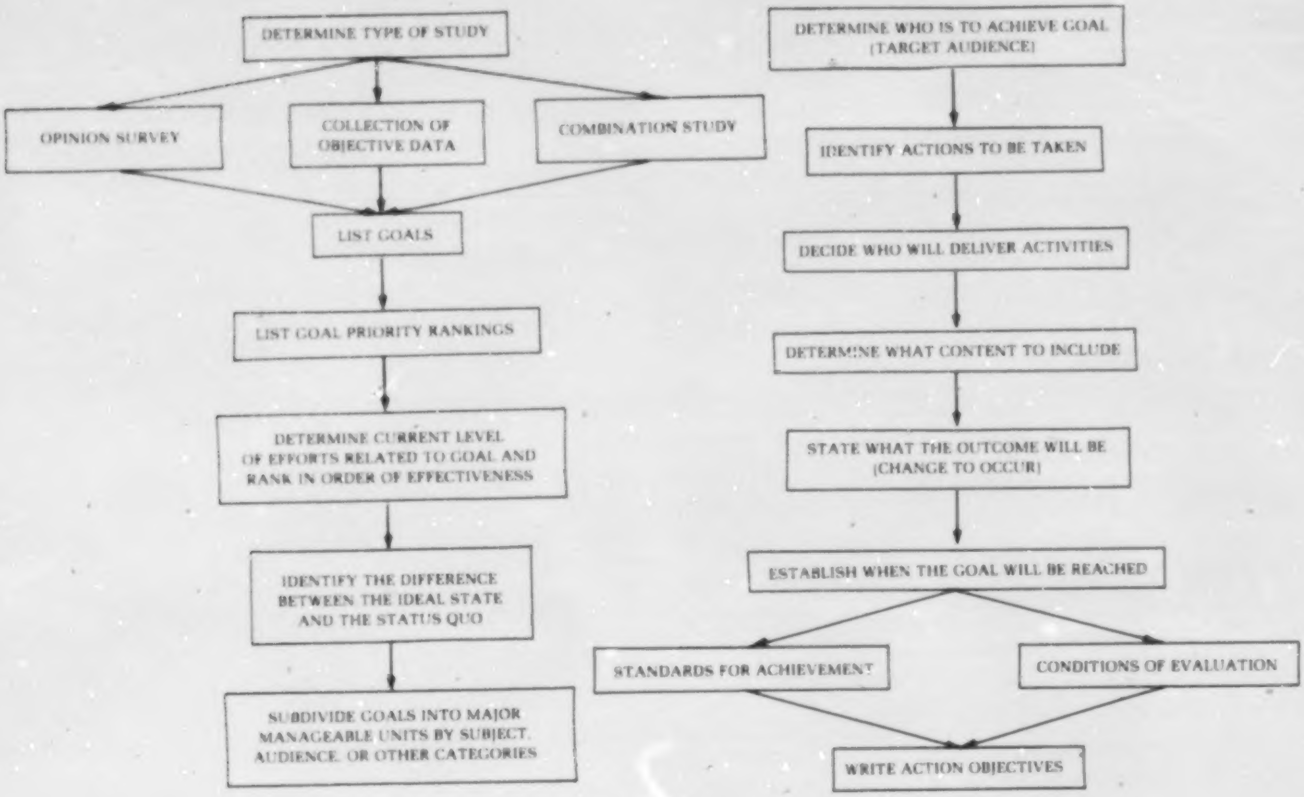
Fourth Priority Goal: **Raw Score:** ____________

Fifth Priority Goal: **Raw Score:** ____________

Sixth Priority Goal: **Raw Score:** ____________

Problem Solving Model:
NEEDS ASSESSMENT COMPONENT

Problem Solving Model:
ACTION OBJECTIVES COMPONENT


DETERMINE TYPE OF STUDY
OPINION SURVEY
COLLECTION OF OBJECTIVE DATA
COMBINATION STUDY
LIST GOALS
LIST GOAL PRIORITY RANKINGS
DETERMINE CURRENT LEVEL OF EFFORTS RELATED TO GOAL AND RANK IN ORDER OF EFFECTIVENESS
IDENTIFY THE DIFFERENCE BETWEEN THE IDEAL STATE AND THE STATUS QUO
SUBDIVIDE GOALS INTO MAJOR MANAGEABLE UNITS BY SUBJECT, AUDIENCE, OR OTHER CATEGORIES
DETERMINE WHO IS TO ACHIEVE GOAL (TARGET AUDIENCE)
IDENTIFY ACTIONS TO BE TAKEN
DECIDE WHO WILL DELIVER ACTIVITIES
DETERMINE WHAT CONTENT TO INCLUDE
STATE WHAT THE OUTCOME WILL BE (CHANGE TO OCCUR)
ESTABLISH WHEN THE GOAL WILL BE REACHED
STANDARDS FOR ACHIEVEMENT
CONDITIONS OF EVALUATION
WRITE ACTION OBJECTIVES

Chapter 3

Assessing Needs and Setting Action Objectives

3

DESTINATIONS

When you complete this chapter, you will be able to:

State a definition for the term "needs assessment."

List three reasons why assessing needs is important.

Distinguish between two needs assessment models: perceived needs and objective needs.

Explain the process of assessing needs.

Conduct an assessment of needs.

Define the term "action objective."

List at three reasons why setting objectives is important.

Explain the process of setting action objectives.

Set action objectives.

Systematically solving problems

A goal, it was suggested in the previous chapter, essentially is a broad statement about "what ought to be." The status quo is a description of "what is," or the current state of affairs. The difference between what ought to be and what is often is described as a need. The process of determining what needs exist is called a needs assessment. Assessing needs is the second major step in the problem-solving model presented here.

There is little disagreement that the secret to successfully solving problems is in being systematic. There is some debate, however, in educational and other circles about which system to follow, or, to be more precise, about which model or process to follow in getting started.

There are some proponents of starting by determining what currently exists: the current state of affairs or "what is." This group believes that only after exhaustively identifying and understanding the current state of affairs is it desirable to begin setting goals, those statements about what ought to be. Their argument is: *how can you know what ought to be if you have not carefully studied what is?*

Many others, however, believe, and it is the contention of this book, that the appropriate place to begin is by setting broad goals about what ought to be. Once a general direction has been determined, the investigation into the current state of affairs ("what is") can progress more efficiently and effectively. Thus, one of the major advantages of this approach is that the goals set initially provide some framework within which all subsequent activity can be focused, particularly assessing needs.

By starting with some overall goals, it is possible to concentrate efforts in specific directions rather than somewhat aimlessly attempting to uncover the entire state of affairs or all existing problems and then trying to decide which to act upon. At the same time, beginning with broad goals obviously does not ignore the status quo, for it is probably some disturbance in the environment or disagreement with current conditions that initiated the problem-solving process in the first place.

Goals are never intended to be too specific in their wording, or the direction they provide. Rather, they provide a general target state of affairs. A good goal statement, however, should not be so general that it gives little direction for subsequent efforts. "Students should do well," is a legitimate goal. It is so broad, though, that few people would know where to begin in attempting to attain it.

The previous chapter concentrated on how to identify potential goals, who to involve, how to categorize goals, and how to establish goal priorities. That chapter also gave some general suggestions on how to write a useful goal statement: providing some clues about the intended audience, general time frame, and efforts possible in attaining the goal.

It was suggested that goals are not intended to be "rules," however. Thus, the major emphasis was less on what goals should be set or how they should be worded than on the process to follow. The reason for this is that the initial goal-setting step of this problem-solving model is important for other reasons. One important outcome of following the process proposed is obtaining consensus of those involved and the support of a large portion or all of those who will be directly or indirectly affected by attainment of the goal. Another outcome is that the way will have been paved for cooperation in what is to follow: assessing needs, establishing action objectives, reviewing and selecting products, implementing programs, and, finally, evaluating results. Goals, in other words, provide a framework for subsequent activities and they help people understand why certain activities are being carried out.

Assessing needs concentrates on finding out what exists and why. This can be an investigation into areas that some people whose area of activity is investigated may feel is "no one else's business". Those who are charged with conducting a needs assessment often can avoid problems like this when they are prepared with goals upon which representatives of all groups involved, including those in the needs assessment phase, have agreed and had a role in setting.

This chapter also covers setting action objectives. Objectives and goals often are confused. The difference between the two, though, really is quite simple: goals identify what ought to be, while objectives direct how to get to what ought to be. Goals are general; objectives are specific. A goal is a target to aim for; an objective is an instruction for how to get there.

This also may be the appropriate point to note that once they get past the "disagreement" about which should come first, the goals or the needs assessment, nearly everyone agrees with the order of the next steps: setting action objectives, analyzing alternate solutions, reviewing and selecting products, implementing the program or a prototype of it, evaluating results, and if necessary, revising the program.

What is a needs assessment?

There are many textbook definitions of the term "needs assessment." For this problem-solving model, the definition which is used is quite direct:

> *A needs assessment is a process of obtaining and analyzing information about problems related to goals which have been set.*

The information which is gathered and interpreted becomes a major tool in the problem-solving and decision-making activity. Needs assessment is a step which cannot be bypassed and which begins once goals have been developed and prioritized.

The final "product" of a needs assessment is a statement of need, or what can be described as the difference between what ought to be and what is. The "what ought to be" is a logical expression of goals, compared to the status quo. Here is another way of looking at the relationships of these concepts and terms:

DESCRIPTIVE TERMS		**FORMAL TERMS**	**PROCESS**
What ought to be	*(Ideal State)*	Goal	Goal-setting
- What is	*(Current State)*	Status Quo	Needs Assessment
= Problem	*(Area for Change)*	Need	Problem-solving

The following example illustrates how the terms "goals," "status quo," and "needs" are applied in a series of related statements:

GOAL:	To increase awareness in junior high school students of career opportunities.
STATUS-QUO:	The current curriculum has no career exploration activity for junior high students, thus creating a "gap" in their awareness of career opportunities at the time they reach high school. This prevents effective counseling, program design, and student integration of learning with career planning.
NEED:	A program is needed for junior high school students to formally increase their awareness of career opportunities.

In the example above, no activity appears to have been initiated toward achieving the goal. Thus, the need varies little from the stated goal. If some activities are occurring toward accomplishment of the goal, the need probably will be expressed in different terms and may not rate as high on the priority listing established for the goal, depending on the judgement of the effectiveness of current activities. Here's an example of where the goal and the need are not as similar:

GOAL: To increase awareness in junior high school students of career opportunities.

STATUS QUO: Several non-formal activities have been included in some eighth grade courses and a formal program has been designed but not implemented. There is no existing program for the seventh grade.

NEED: Implementation of the eighth grade program, design of a seventh grade program, and development of strategies for designing an integrated program for the entire junior high school.

Why conduct a needs assessment?

A needs assessment provides critical information needed for problem-solving and decision-making. It also provides data for evaluating the results of the program which ultimately is designed to reach goals. Here are some other benefits:

- Assists in clearly identifying the problem.
- Helps identify problem-solving methods and materials used in other similar programs.
- Provides a data base for future decisions.
- Establishes a process for continued evaluation.
- Provides a basis for allocation of resources.
- Aids in achieving greater involvement and input by team members and others.
- Provides data on the validity of the goal which has been set.
- Aids in developing a program which is most appropriate for the intended audience or organization.

What are the basic types of needs assessment?

An assessment of needs is a procedure tailored to identifying existing conditions. It is especially suitable when a change in present human knowledge, skills, or attitudes can result in achieving goals or when new materials or programs can improve target performance.

A needs assessment, in other words, is directed at people and their activities, organizations, and materials and procedures. A needs assessment may be as simple as asking people their opinions or as complex as collecting extensive data about students, teachers, the school, the community, and all other parts of the system.

Assessments of needs generally fall into one of the following types, or broad categories:

1. **Perceptions**. This type of needs assessment primarily involves collecting opinions from representative groups in the system about what exists and why. The data collected tend to be subjective.
2. **Observations of actual conditions**. This type of analysis actually collects information about what exactly exists. Rather than possibly biased opinions, this data tends to be more objective than opinion surveys.
3. **Assessing perceived and actual needs**. This type of assessment combines the above two, and has the advantage of determining if what people think exists actually is happening.

For each general-type, there are many specialized techniques which could be used, including attitude and other kinds of surveys, the Delphi Technique, organizational audits, individual needs analysis, achievement testing, performance appraisal tests, games and simulations, and personal observation. Many of these, while highly effective, are time-consuming, expensive, and require special skills.

What is a simple but effective method for assessing needs?

The multi-purpose needs assessment technique described here combines a number of methods economically and efficiently. It is particularly suited for teachers, administators, and community members who wish to identify where the greatest needs lie but who do not have enough resources to complete an elaborate and extensive assessment of needs.

There are five basic steps in this model, the first two of which may already have been completed:

1. Establish goals.

2. Determine the relative order of importance of each goal (goal priorities).

3. Determine the relative effectiveness of current activities directed toward achieving the goal (the value of existing efforts) and assign rankings in the same way goals were ranked.

4. Identify the difference between the ideal state and what actually exists (the numerical difference between the goal rank and effectiveness of current activities rank).

5. Subdivide goals into major manageable units by subject, audience, or other categories and assign rankings to these.

Each of these steps is described in more detail on each of the following pages. *It should be noted that this system is based on personal opinions or generalities, rather than "hard data" which is collected in more formal needs assessments. USE OF THE MODEL REQUIRES DISCRETION AND JUDGEMENT!**

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*Material in this section is based in part on a paper authored by:
Harold D. Stolovich, "Needs Assessment in the Classroom: Pinpointing Priority Problems," **Educational Technology** 18:26-28, August 1978.

ASSESSING NEEDS

Step One

List pre-established goals.

This is accomplished by following the processes described in the previous chapter. One team, for example, might have identified their goals as:

1. Improve unity among the staff of the school district.
2. Increase career awareness among junior high students.
3. Provide general categories of occupations to high school students.
4. Provide career awareness materials to high school students.
5. Provide career awareness materials for teachers.

ASSESSING NEEDS

Step Two

Determine the relative order of importance of each goal: establish goal priorities.

An effective way to begin establishing priorities is to ask yourself the question: "*If the school only could accomplish one goal, which one should it be?*" A simple way to proceed with accomplishing this step and the two which follow (determining current effectiveness in reaching the goal and assessing where the greatest need lies) is by creating a chart. Following the procedures described in the previous chapter, first list goals by priorities:

	1 –	2 =	3
GOALS	**Importance Rank**	**Effort/ Effectiveness Rank**	**Need Rank**
1. Improve the unity among the staff.	1		
2. Increase career awareness among junior high students.	2		
3. Provide general categories of occupations to high school students.	3		
4. Provide career awareness materials to high school students.	5		
5. Provide career awareness materials for teachers.	4		

ASSESSING NEEDS
Step Three

Determine the realtive effort devoted to
each goal
(the value of current efforts toward achieving it).

This step requires comparing a goal which has been set with the current activities, both amount of effort and apparent effectiveness, directed toward achieving the goal. Such assessments require, at minimum, certain judgemental factors up to careful evaluation of existing efforts. The question to ask here is: "*What are the current efforts (if any) which are related to this goal?*" Assuming that current efforts are relatively effective, select the goal which has the most effort directed toward its accomplishment. Then, in the second column of the chart below (labeled "Effort/Effectiveness Rank"), place a "1" next to the goal toward which the greatest effort is directed. Repeat until each goal has been rated.

	1 —	2 =	3
GOALS	**Importance Rank**	**Effort/ Effectiveness Rank**	**Need Rank**
1. Improve the unity among the staff.	1	1	
2. Increase career awareness among junior high students.	2	2	
3. Provide general categories of occupations to high school students.	3	5	
4. Provide career awareness materials to high school students.	5	3	
5. Provide career awareness materials for teachers.	4	4	

ASSESSING NEEDS

Step Four

Identify the difference between the ideal state and what actually exists.

This step is a simple mathematical process of subtracting the rated number in the Effort/Effectiveness column from the corresponding number in the Importance column. Note the difference in the Need Rank column in the chart below. The largest negative difference indicates where the highest priority appears to be, suggesting a starting point for directing initial efforts. It should be noted that this tends to be a largely subjective process. Its advantage is that it is easily used; the disadvantage is that further judgement may need to be applied or additional study made to verify the findings of what appears to be the need ranking.

	1 −	2 =	3
GOALS	**Importance Rank -**	**Effort/ Effectiveness Rank**	**Need Rank**
1. Improve the unity among the staff.	1	1	0
2. Increase career awareness among junior high students.	2	2	0
3. Provide general categories of occupations to high school students.	3	5	- 2
4. Provide career awareness materials to high school students.	5	3	2
5. Provide career awareness materials for teachers.	4	4	0

ASSESSING NEEDS

Step Five

Subdivide goals into major manageable units
by subject, audience, or other categories.

This step involves taking the goal with the highest need and subdividing it into major units which are manageable. An example might be by audience categories, such as seventh and eighth graders, or by occupational categories as illustrated below. To identify the subdivided goal with the greatest need, the previous steps are followed until a complete chart, such as the one shown below, is obtained. If a tie occurs, the item of highest importance (closest to being rated #1) in the Importance column receives priority.

MAJOR UNITS (subdivided goal) Occupation	**1 — Importance Rank**	**2 = Effort/Effectiveness Rank**	**3 Need Rank**
Engineering	1	3	-2
Drafting	3	4	-1
*Auto Mechanics	2	7	-5
Teaching	5	2	3
Medical Technology	6	1	5
Food Services	4	6	-2
Construction	7	5	-2
Transportation	8	8	0

*Highest Rank

ED. NOTE:

> *The process described here is a mechanical one and there are many who question if the data obtained can be considered valid. The model, thus, should be viewed as one method of indicating an approximate ranking of apparent needs.*

Using a needs assessment

A needs assessment tells whether or not a problem really exists and, if so, how great that problem is in relation to goals or the desired state of affairs. It helps tell who is involved in the problem, why the problem exists, and suggests some things about solving the problem.

In its most complex forms, it defines present levels of performance, identifies specific targets, assesses the organizational climate, examines tasks and flow of information, and helps determine the length, scope, format, location, cost, and frequency of effort needed to correct the situation. This kind of needs assessment requires relatively sophisticated research tools and procedures.

At a basic level, as described in this book, a needs assessment identifies what things currently exist and which may need changing to reach goals. The five-step process described here also helps rank effort (and apparent effectiveness) and potential needs by priority.

One approach to conducting a needs assessment is to ask the opinions of others. Another, sometimes more reliable method, is to more objectively identify current conditions through surveys, personal observation, and various kinds of performance analyses.

A needs assessment focuses on answers to four basic questions:

1. Where do we want to be? *(GOALS)*
2. Where are we now? *(STATUS QUO)*
3. What can be done to get from "what is" to "what ought to be?" *(NEEDS STATEMENT)*
4. What should be done first? (STATEMENT OF NEEDS RANKING)

However it is conducted, a needs assessment is a critical step between setting goals and establishing action objectives (instructions on how to reach goals). Needs assessment is the major information-gathering or fact-finding component of problem-solving.

What is an action objective?

Here is a definition for the term "action objective:"

> *An action objective is a statement of tasks to be accomplished by individuals or organizations in order to meet a need and reach a goal.*

Used effectively, action objectives provide a clear-cut guide for reaching goals. They also serve as a guide for selecting products or methods and preparing valid tests of results. Action objectives might be compared to a recipe for how to get from what is to what ought to be.

What is included in an action objective?

An action objective is a communication tool, providing information and an interpretation of that information. A good action objective contains at least six basic parts, or components; which describe how to get to the goal:

1. **Who is to achieve the goal**. The target audience might be an individual or group of individuals or an organization.
2. **What actions should be taken toward accomplishing the goal**. These instructions list tasks necessary to reach the desired future state.
3. **Who will deliver the activities**. Responsibility must be placed on individuals and/or organizations to conduct the tasks necessary for attaining the goal.
4. **What content is covered**. This information places the goal in context with specific curriculum or other content related to the goal.
5. **What the outcome will be**. The expected results or the change which will occur must be stated.
6. **When the goal should be reached**. This component of an action objective sets out a time frame for conducting the activities necessary for attaining the goal and also specifies when the goal will be reached. In addition, two additional types of information may be included:
    - a. **Standards for achievement**. What criteria will be used to determine that the goal has been reached satisfactorily?
    - b. **Conditions of evaluation**. Under what conditions will measurement that the outcome has been achieved be administered?

Here are some examples which contain the six basic parts of an action objective:

GOAL:

To provide information to students on general categories of occupations which can be integrated into their formal high school learning activities.

NEEDS STATEMENT:

Sixty percent of the high school students, given an occupation in which they are interested, cannot describe areas of classroom study which can contribute to knowledge used in that occupation. No program exists to provide occupational information to high school students except for an informal program just prior to graduation. Community employers express dissatisfaction with the job-related knowledge of recently graduated, newly hired high school graduates. Parents express concern that high schools are not properly preparing students for careers.

STUDENT-FOCUSED ACTION OBJECTIVE:

Eighty percent of the students,	*(Who is to achieve goal)*
by the time they graduate,	*(When goal will be reached)*
will complete a course of study	*(What actions will be taken)*
which contributes to the knowledge used	*(What content*
in each of ten general occupational areas.	*is to be included)*
The program will be developed	*(Who will deliver*
by a task force comprised of teachers,	*the activities)*
students, parents, and prospective employers.	

NOTE: *What outcome is implied by the phrase* "contributes to the knowledge"? *Ideally, that statement should be expanded to indicate precisely how it will be determined if a change has occurred.*

INSTITUTION-FOCUSED ACTION OBJECTIVE:

By the beginning of the fall semester,	*(When goal will be reached)*
the local school	*(Who will deliver activities)*
will provide career awareness	*(What actions will be taken)*
inservice materials	
to the teachers	*(Who is to achieve goal)*
who will implement them	*(What the outcome will be)*
in each of their respective	*(What content is to be included)*
curriculum areas.	

Writing clear action objectives which will be understood by all involved is a much more time-consuming and exacting task than phrasing goals. The examples given above are relatively simple, but may suffice in many situations. In other situations, it may be desirable to be far more precise in stating the six major components of a good action objective.

How do you learn how to write good action objectives?

The only good way to learn how to write effective action objectives is to practice writing them and then ask others for their interpretation. Can someone else step in to develop a program intended by the objective writer? In the following section, there are some exercises both for writing action objectives and for conducting needs assessments.

ASSESSING NEEDS
AND
SETTING ACTION OBJECTIVES

Practice Exercise

The following is a practice exercise for following through the processes of assessing needs and setting action objectives.

The purpose of this exercise

The purpose of this section is to provide a structured learning experience designed to improve basic needs assessment and action objective writing skills. The skills learned are intended to be applicable to an educational or similar problem-solving activity.

How to do the practice exercise

This exercise can be done individually or in groups. If it is a team effort, use the set of team goals developed and prioritized in the practice exercise for the previous chapter. If new goals are used, refer back to the preceding chapter and to the discussion of needs assessment and the five steps outlined in this chapter.

1. Using the Needs Assessment Priority Form (Form F), list six goals (either a new set or those goals developed and prioritized in the exercise at the end of Chapter Two). If this is a team effort, everyone should be given a copy of Form A with an identical list of six goals.

2. Examine the goals in relation to each other and ask the question, "*If it were only possible to accomplish one goal, which one should it be?*" The goal selected becomes the top priority goal, number one. (If the goals already have been prioritized, use that list of priorities.) Proceed until all goals have been ranked in order of priority. These priorities, from one to six, should be listed in the first column, "Importance Rank."

3. Now examine each goal and determine which has the greatest current activity and apparent effectiveness directed toward it by teachers, students, the school, and/or others. The goal with the most activity is ranked number one and that number is placed opposite the goal in the second column, "Effort/Effectiveness Rank." Assign each goal such a ranking from one to six. This ranking may be based on subjective opinions or objective research.

4. To determine the goal with the greatest apparent need, subtract the number in the second column (Effort/Effectiveness Rank) from the number in the first column (Importance Rank). Write the difference, either a positive or negative number, in the third column, "Need Rank." If two goals are tied, select the one nearest the top priority (column one) for the higher need priority ranking. The goal with the highest negative number in the third column then ranks first in priority and a number one should be put in parentheses after the Need Rank score. Number each goal in order of ranking. Remember that this is a mechanical method and some judgement must be brought to bear on the decision to abide by the results obtained.

5. In the first round, the major area of need usually is located. The goal, however, may be considered by many to be too broad. If this occurs, it may be necessary to clarify the goal or to subdivide it into more manageable units which they can be analysed and developed. First decide upon a category system for subdividing the goal. This may be by target audience, curriculum or other content, occupational area, or any other appropriate category. List all topics in the category on Form G,Goal Subdivision Form, and rank each item or unit in terms of priority following a process similar to that followed above. (Also see Step Five in Chapter Three.)

6. Using Form G, list each of the six goals and their subdivisions in order of Need Ranking (#4 and #5 above) in the first column. Then, in the second column write a short statement of the need.

7. The last part of this exercise is to write action objectives for each of the goals. Use Form H, Action Objective Writing Form, for this purpose. First identify the six components for a student-focused action objective related to the goal. Then identify the six components for an institution-focused action objective. Finally, write a clearly stated action objective based on the components for either student- or institution-focused action objectives.

8. Finally, have one person on the team read his or her action objective. Other members of the team should attempt to determine objectively if the action objective provides adequate instructions to achieve the goal as intended and as directed by the action objective. If the action objective is not clear and complete, the team should work together to improve the action objective.

9. Produce an action objective, using Form H,for each of the goals and needs statements listed on Form G. It may be effective to assign one or two goals to each team member, rather than having all members write an action objective for the same goal.

FORM F
NEEDS ASSESSMENT PRIORITY FORM

Use this form for ranking in order the importance of the goal (goal priority) and the effectiveness of current efforts in columns one and two and for computing the need ranking in column three (column one minus column two). The need with the highest negative number should be the highest ranking need. Place a number one in parentheses in the last column opposite that goal.

	1 -	2 =	3
GOALS	Importance Rank	Effort/ Effectiveness Rank	Need Rank
1			
2			
3			
4			
5			
6			

FORM G

SETTING ACTION OBJECTIVES

Use this form to list the goals and their subdivisions in the first column in order of need ranking (from last column of Form F). In the second column write a short statement of the need.

GOALS	NEEDS STATEMENT
1	
2	
3	
4	
5	
6	

FORM H

WRITING ACTION OBJECTIVES

Use this form for identifying the six basic components of an action objective and for writing an action objective based on a pre-established goal.

STUDENT-FOCUSED ACTION OBJECTIVE

1. Target audience ____________________
2. Specific actions ____________________
3. Who will deliver ____________________
4. Content ____________________
5. Outcome or expected results ____________________
6. Time period or ending point ____________________

INSTITUTION-FOCUSED ACTION OBJECTIVE

1. Target audience ____________________
2. Specific actions ____________________
3. Who will deliver ____________________
4. Context ____________________
5. Expected Outcome ____________________
6. Time period or ending point ____________________

WRITING AN ACTION OBJECTIVE

GOAL ____________________

STATEMENT OF NEED ____________________

ACTION OBJECTIVE ____________________

____

____

____

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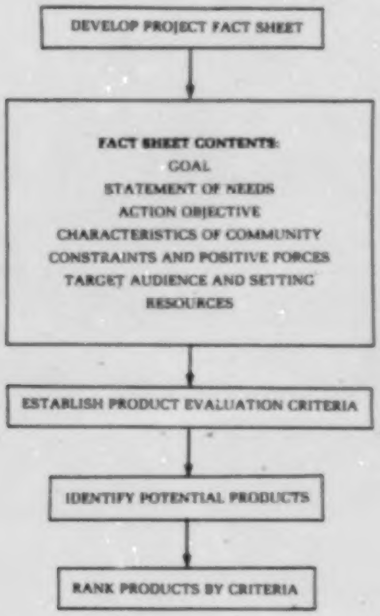
Problem Solving Model:
PRODUCT/PROGRAM REVIEW COMPONENT


DEVELOP PROJECT FACT SHEET
FACT SHEET CONTENTS:
GOAL
STATEMENT OF NEEDS
ACTION OBJECTIVE
CHARACTERISTICS OF COMMUNITY
CONSTRAINTS AND POSITIVE FORCES
TARGET AUDIENCE AND SETTING
RESOURCES
ESTABLISH PRODUCT EVALUATION CRITERIA
IDENTIFY POTENTIAL PRODUCTS
RANK PRODUCTS BY CRITERIA

Chapter 4

Identifying Alternate Solutions: Review of Products and Programs

DESTINATIONS

When you complete this chapter, you will be able to:

Complete a Program Information Description.

Develop criteria for use in identifying and reviewing product descriptions and products.

Revise criteria, if necessary, based on additional information.

Identify products or programs, or both, which meet the developed criteria.

Review or evaluate products based on the criteria.

4

Why identify alternate solutions?

Once goals have been set, needs assessed, statements of needs formally written, and action objectives established, it often is tempting to jump immediately to identifying the specific products or curriculum materials to be used:

> *"What we need are some films to show to seventh graders about different career opportunities."*
>
> *"The teachers ought to schedule some field trips to local businesses to familiarize students with opportunities."*
>
> *"We should have a school career "expo" once a year where students can go from booth to booth and get specific career information."*
>
> *"Each school should have a career counselor."*

Each of the statements above focuses on a specific kind of product. Specific products in education often are referred to as "teaching/learning techniques" or "instructional materials." Identifying and implementing products are the final steps of the model presented here, but a step in between those previously covered and product selection often is very desirable. Otherwise, assumptions may be made that only certain kinds of products are suitable, thus possibly limiting the scope of the product search. There may be many different solutions to a problem and, therefore, many different types of products which can be selected.

Exactly what program is most suitable for a given situation, largely will depend on local conditions, including characteristics of the community, constraints and positive forces working in the system, target audience and setting, and available resources. This chapter focuses both on analyzing alternate programs, or overall solutions, and specific products. An effective decision-maker nearly always wants to have alternatives available, either to project results of one program or product compared to others or to have an alternative to fall back upon in case a problem arises with the first choice. A key to success is in generating *criteria* for identifying potential products and to establish an organized system for reviewing products based on those criteria. The criteria, in effect, are the framework of the program in which the product(s) will be used.

What is a product?

Instructional products often are called media, or mediated instructional materials, to distinguish these from "live" lectures or demonstrations. Mediated instructional materials, or products, may be in the form of print media: books, forms, posters, and other publications. Products also may be in the form of still photographs or slides, motion pictures, videotape (television) programs, three-dimensional displays, and working models. At the same time, potentially effective products should not exclude more traditional teaching strategies.

Valid instructional materials usually are developed through a formal research and development process, often funded under a state or federal government grant or contract, by a foundation, or by an established publishing company. They are considered to be valid if they meet certain development and testing criteria before being published or produced. In addition, various informational materials, while less formally designed, also may be useful in a program. The materials chosen must be transportable, tangible, and include methods or techniques necessary for application to the teaching/learning process.

Why identify and review products?

Very often, it will be the products used in the teaching/learning experience which will play a major role in achieving the intended outcome. The products must fulfill many of the conditions set forth in the action objectives in order to achieve maximum effectiveness.

Products related to career education, for example, do exist, but it often is difficult to decide which to select. Many characteristics need to be considered:

1. Are the materials unique to and suitable for the characteristics of the local school or organization?
2. Are the products relevant to established goals, needs, and action objectives?
3. Do products meet established criteria as instructional materials?
4. Are the materials readily available and at a cost within the allocated budget?

How do you get started?

One of the ways to begin reviewing the potential appropriateness of products is to develop a program information form or fact sheet. This is a simple form which lists key elements in the proposed program. Two examples of this kind of information sheet are provided on the following pages. They describe what is currently known and relevant to the project.

PROGRAM INFORMATION FORM

Description of the Blue Ridge School Project

Goal

To provide high school students with a formal program which presents information on general categories of occupations and which can be integrated into formal learning throughout high school.

Statement of Needs

Sixty percent of the high school students, given an occupation in which they are interested, cannot describe areas of classroom study which can contribute to knowledge used in that occupation. Local employers report that recently hired high school graduates do not have skills necessary to satisfactorily perform job tasks.

Action Objective

Eighty percent of the students, by the time they graduate from high school, will complete a course of study which contributes to the knowledge used in each of the general occupational categories. Students will be asked to state specific skills and other learning necessary to succeed in one or more occupations. The program will be designed by a task force of teachers, students, employers, and others and implemented by the school as a formal course.

Characteristics of the Community

The community is urban and primarily industrial. The population is exceptionally stable, but has decreased in recent years. The school system traditionally has been taken for granted, but there has been a recent grassroots interest in upgrading basic skills of students, especially as they may apply to specific jobs or broad categories of occupations.

Constraints and Positive Forces Operating in the System

The last millage was rejected. Thus, the school system has been forced to operate on a minimum budget. There will be a new millage election in the spring.

and the school board is asking primarily for a needed maintenance budget and cost-of-living salary increases for all personnel.

The school board has mixed attitudes: about half of the members are in favor of innovative ideas, while the other half wants to cut the budget and all "frills." All, however, believe that the school system should provide better occupational skills learning experiences in the high schools.

The school administration is somewhat supportive of innovation, but all changes must be justified and verified. The staff turn-over is high, making it more difficult to implement new programs.

In a tight labor market, only those students with the most well developed skills and well-focused career goals are able to find jobs locally. Parents tend to believe that whether their children seek jobs immediately upon high school graduation or seek some post-secondary education that they should have a greater awareness of occupation possibilities and a stronger career focus.

Target Audience and Setting

Grade levels: high school.

Characteristics of the target students: inadequate basic skills, lack of interest, and low achievement.

Characteristics of the school staff: basically interested in improving the status quo, but divided in ways to do it. Some feel there should be a return to "the basics," while others feel learning should be oriented around career interests and occupational skill needs of the students.

Resources

People: there is one teacher available in each of the three high schools available to coordinate Career Education.

Materials: there are few Career Education materials available in the schools at the present time.

Physical Setting: within the system, there is one relatively new school with a minimally operating vocational setting. In the other schools, little space is available for a new course or Career Education Center.

Financial: funds available for purchasing materials are very limited; some funds can be reallocated toward designing and teaching a course in Career Education.

PROGRAM INFORMATION FORM

Description of the Greenside School Project

Goal

Students in grades K-6 will increase their career awareness in several occupational categories through integration of information into existing studies.

Statement of Needs

Ninety percent of the K-6 students, as indicated by the teachers and parents, are interested in a career awareness program.

Action Objective

Ninety percent of the K-6 students, by the time they complete the elementary grades, will become aware of at least three careers associated with their expressed area of interest (occupational categories). This will be accomplished by integrating career information into regular classes, supplemented by less-formal activities. The program will be developed by a task force comprised of teachers, students, parents, and local business people. Students will demonstrate that they are aware of at least three career opportunities through special projects in the sixth grade.

Characteristics of the Community

The community is a suburban area that is not fully developed. There may be a need for another school, but the public is concerned that there may not be enough students to warrant an additional building. Since this is a relatively young community, people are involved in the schools. A great variety of occupations are represented by residents of the area.

Constraints and Positive Forces Operating in the System

A millage election is to be held soon. The board has submitted three packages. Basically they are: a cut-back in all programs and services, a maintenance of the current operation, and an ideal budget which would allow for improvement and growth in educational opportunities for all students.

The school board, in general, is supportive of the school programs and hopes to continue improving the quality of education.

The teaching staff is concerned with the potential cut-back in staff and supportive services.

Target Setting and Audience

Grade level: K-6.

Characteristics of the targeted students: students have expressed interest in career awareness, but a recent survey indicated that they do not understand the meaning of the term. Overall, students are responsive to new techniques.

Characteristics of the school staff: teachers are responsive to innovation, overall, and have indicated interest in making learning more relevant for students. Given a framework, past experience shows that most teachers will integrate new programs into their curriculum when new ideas are well-presented and thoroughly documented.

Resources

People: two counselors in the school and the principal are already designing a career awareness program.

Materials: limited career awareness materials are presently available and these are quite disorganized.

Physical setting: two elementary school buildings exist, one an open classroom design and the other traditional.

Financial: a small budget already has been allocated for the design of a career awareness program (see above); some additional funds can be made available for new materials.

Why create a Program Information Form?

A form which describes current situations in context with the goals which have been established and needs which have been identified brings a great deal of relevant information together. Essentially it provides useful background information, ranging from further elaboration of the problem at hand, tc an analysis of the setting and indication of the resources, both human and other, available. Such a "fact sheet" assures that all involved in the effort have the same information.

Every situation is unique, thus requiring information which may be substantially different from one school or problem area to another. One school district's information form, for example, may be very similar to the ones on the previous pages, while for another quite different types of information may be needed. The interpersonal relationships of teachers and students or teachers and parents or parents and students may be important information to include. A more elaborate description of the people resources may be desirable, identifying particular skills or attitude deficiencies existing among the organization's staff.

Another way this form will be used is in the following step, developing criteria for products.

What are "product criteria?"

Criteria provide some evidence or indication that a product is suitable for the intended teaching/learning activity, as well as suitable for the organization and community as a whole. The information forms described earlier in this chapter provide one source of possible criteria.

Criteria for evaluating products will vary from organization to organization, from type of program to type of program. With some criteria at hand, identifying and reviewing products becomes a simple matter of comparison: does the product meet all criteria, most of them, or just a few? A basis for possible product selection, thus, is established. If one criterion established by the team is the target audience of grades K-6, any materials designed for secondary programs which are uncovered by the search are automatically eliminated.

Some possible criteria include:

- **Cost** -- can the budget accomodate the product?
- **Availability** -- is the product (a film, for example) available when teachers need it?

- **Grade level** -- has the product been designed for the intended grade level?

- **Suitability for the community** -- if the community is urban and the product is primarily oriented around rural activities, is it appropriate?

- **Suitability for the occupation** -- if most of the students' interests and skills are oriented in one direction, does the product merely frustrate students or does it challenge them?

- **Level of sophistication** -- if the product covers highly sophisticated aeronautical careers and the nearest employers are several hundred miles away, should the product be considered as one of the basic learning materials?

- **Learning strategy** -- if the product is designed for self-paced use and teachers are now used to this kind of educational strategy, will the product create more problems than it is worth?

The list of criteria can be long or short, simple or complex. The list gives only a few possibilities.

How can products be identified?

Once criteria have been established, the identification process consists of two steps: inventorying existing products and examining external sources.

1. **Products existing in the system.** The school library, classrooms, resource center, and other units may have existing products. By inventorying them and assessing their value based on criteria, you will determine if a base exists and also become aware of whether or not what you have serves your identified goals and needs, along with meeting your action objectives. This process also further involves the staff in the problem-solving process, particularly those who are not formally part of the team or problem-solving task force.

2. **Products available from external sources**. The number of potential sources of products is nearly endless. It includes state and federal government agencies, colleges and universities, educational publishers, business and industry, associations, labor organizations, community service groups, and others. Some of their products will be carefully designed for instructional use, while other products will be more suitable for non-formal uses. In addition to contacting individual organizations, it may be useful to review publications in the educational field which describe new teaching/learning products, along with catalogs of instructional materials published by developers.

Sources of Career Education products for Michigan

Here are some of the major sources of products in Michigan:

State of Michigan Department of Education. The Office of Career Education collects and analyzes information on career education products and develops information files on each product. These are included in a career education resource pool, available to local school districts. In addition, Project CEDISS (Career Education DISSemination) has been funded by the National Institute of Education (NIE) to accomplish this task.

National Institute of Education (NIE). This organization publishes a catalog describing programs whose research and development it has sponsored.

United States Office of Education (USOE). This organization publishes a catalog entitled "Educational Programs That Work" which describes programs which have been validated by the Joint Dissemination Review Panel (JDRP) and disseminated by the National Diffusion Network.

Michigan universities and colleges. Many higher education institutions in the state create and produce mediated products and other materials which may be suitable for Career Education programs. Some also have rental libraries of films, videotapes, and slide programs.

Business, industry, labor, associations, and other organizations. Many private organizations, along with educational publishers, produce Career Education products. Some of these products have been validated, while others have not. Contacting local or regional organizations may be a source of supplemental Career Education products.

IDENTIFYING ALTERNATE SOLUTIONS: REVIEW OF PRODUCTS AND PROGRAMS

Practice Exercise

The following is a practice exercise for
improving skills in
developing criteria for product identification
and review.

The purpose of this exercise

Like previous exercises, this one has a double purpose. First, it improves skills in developing criteria for product identification and review. Second, it demonstrates methods for team work and obtaining group consensus. At the same time, the exercise can be worked individually by someone who wishes to improve his or her own skills in this part of the problem-solving model.

How to do the practice exercise

1. Using the Program Information Sheet (Form I), choose one goal and corresponding statement of needs and action objective from the practice exercises in the previous chapter. For your local school or organization, complete the remainder of this form.

2. Using this fact sheet and group discussion, develop a set of criteria for reviewing products (Form J) which is suitable for your particular setting.

3. Form K s a Criteria Checklist for reviewing and selecting products. Refer to this list for suggestions of some criteria which may be included in the group's set of criteria.

4. After the team has agreed that their criteria list reflects the standards for judging the applicability of a product, select two possible products and rate them. Identify, if possible, two products which appear to match the criteria. To accomplish this step, it may be desirable to assign each member the job of obtaining one or two possible products and reviewing them personally and then later with the entire group.

5. When the team has evaluated the products against the criteria, consider the results from the point of view of the best overall match between product and criteria. Also, consider whether certain of the criteria are more important than others. If so, determine how the products rate against each other on these "Critical" criteria.

6. After the products have been reviewed against the criteria and each other, rank the products according to probable effectiveness in carrying out the action objective. If a copy of Form J has been used for each product, these can be assembled in order of highest to lowest probable effectiveness.

FORM I

PROGRAM INFORMATION SHEET

Use these headings to create a "fact sheet" on your local situation, using a goal, statement of need, and action objective developed in the previous practice exercises.

GOAL:

STATEMENT OF NEED:

ACTION OBJECTIVE:

CHARACTERISTICS OF THE COMMUNITY:

CONSTRAINTS AND POSITIVE FORCES OPERATING IN THE SYSTEM:

TARGET SETTING AND AUDIENCE:

Grade Level:
Characteristics of the target audience:

RESOURCES:

People:

Materials:

Physical Setting:

Financial:

Other:

FORM J

CRITERIA FOR REVIEWING AND SELECTING PRODUCTS

Use this form for listing criteria upon which a decision will be made either to use or not use a particular product. List the criteria in the left column. In the columns at the right, establish a rating system such as 5-1 or excellent to poor.

RATING SCALE

NAME OF PRODUCT ________________

____

CRITERIA						
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						

FORM K

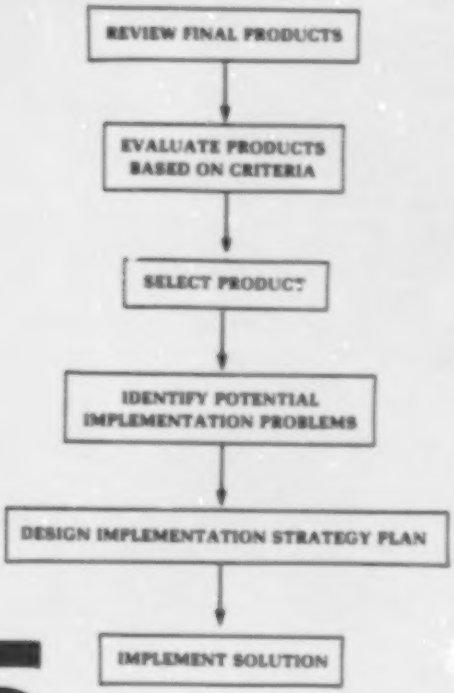
CRITERIA CHECKLIST FOR REVIEWING AND SELECTING PRODUCTS

NAME OF PRODUCT ________________

____

CRITERIA	RATING SCALE 5.Terrific!	4.Pretty Good	3.Adequate	2.Rocky Road	1.No Way!!	MORE INFORMATION NEEDED
1.Cost						
2.Packaging						
3.Type (teacher's manual, workbook)						
4.Grade, reading comprehension						
5.Special groups (handicapped)						
6.Subject area						
7.Technique (lecture, small group)						
8.Objectives clear, valid						
9.Unbiased information						
10.Methods clear						
11.Evaluation measurable						
12.Flexible, adaptable						
13.Meets staffing needs						
14.Equipment available						
15.Outcome validated elsewhere						
16.						
17.						
18.						

Problem Solving Model:
PRODUCT SELECTION AND IMPLEMENTATION COMPONENT


REVIEW FINAL PRODUCTS
EVALUATE PRODUCTS BASED ON CRITERIA
SELECT PRODUCT
IDENTIFY POTENTIAL IMPLEMENTATION PROBLEMS
DESIGN IMPLEMENTATION STRATEGY PLAN
IMPLEMENT SOLUTION

Chapter 5

Implementing a Solution: Product Selection and Evaluation

DESTINATIONS

When you complete this chapter, you will be able to:

- *Select products for implementation.*
- *Identify a strategy plan for obtaining support for successful implementation of a product.*
- *Identify the key components of the problem-solving model.*

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Following the Problem-solving Model: A brief review

The problem-solving model presented here is a systematic process which concludes with actually selecting a product, implementing it, and then evaluating its success in resolving the problem. Rather than focusing entirely on problems, this model begins with a goal related to solving a problem, or, as it often has been described, meeting a need. It is positive approach to problem-solving and can be summarized as a series of steps, most of which now have been covered:

TASK ONE: Set Goals

Step 1: Recognize the major components of a good goal statement: expected outcome, ending point, and general direction for related activities.

Step 2: Identify all who should be involved in or will be affected by the goals to be set.

Step 3: Identify possible goals, using a conference or meeting, survey, personal interviews, or other similar methods, making sure that all groups are represented.

Step 4: Develop clear goal statements in writing.

Step 5: Categorize the goals by target audience, content or curriculum, or other system.

Step 6: Prioritize goals using individual ratings, group consensus, or, most ideally, by a scale ranking technique.

Step 7: Communicate results to all who have been and ultimately will be involved.

TASK TWO: Assess Needs

Step 8: Determine the best method for collecting information about local needs related to the goal: opinion surveys, collection of objective data, or a combination of techniques.

Step 9: Determine current level of efforts and activities directed toward the goal in order to list goals in order of current effectiveness.

Step 10: Identify the difference between the ideal state (goal) and the status quo in order to obtain a ranking of needs.

Step 11: If necessary, subdivide goals into major manageable units by subject, audience, or other categories in order to obtain further ranking of needs in relation to goals.

TASK THREE: Set Action Objectives

Step 12: Determine who is to achieve the goal (the target audience).

Step 13: Identify what actions should be taken to achieve the goal.

Step 14: Decide who will deliver these activities.

Step 15: Determine what content to include.

Step 16: State what the outcome will be, or what specific change will result.

Step 17: Establish when the goal will be reached.

Step 18: Write action objectives.

TASK FOUR: Identify and Review Alternative Products

Step 19: Develop project or community information sheet which includes the goal, statement of needs, action objective, characteristics of the community, constraints and positive forces working in the system, target audience and the setting, and available resources.

Step 20: Establish product evaluation criteria based on information in the fact sheet.

Step 21: Identify potential products from national, state, regional, and local sources.

Step 22: Rank products by criteria.

TASK FIVE: Select and Implement product

Step 23: Select from the most acceptable products the one which will be implemented.

Step 24: Develop a strategy plan to implement the product and to gain the acceptance of all who will be involved.

Step 25: Implement the product.

Task Five and its three major steps are covered in this chapter.

How should products be selected?

There are an increasing number of formal systems being developed to aid in deciding upon programs, products, and instructional materials. The Association for Educational Communications and Technology, for example, has developed a series of forms for evaluating various products against a number of specialized criteria (see References). Ultimately, local decisions will be made based on some system similar to the one described in the last chapter: based on criteria related to goals, needs, and action objectives, along with various local conditions.

The forms in the Practice Exercise in Chapter Four provide one of the most direct methods of selecting products. Once a possible product has been identified, obtained, reviewed, and evaluated against specific criteria, the problem-solving group has the basic information necessary upon which to begin basing decisions. Evaluation, in this context, is the process of examining certain objects, or products, and events in view of specified value standards (or criteria) for the purpose of making decisions.

If all the proceeding steps in the model presented here have been followed, the group is in a position to act. Of the highest ranked products, one or more are selected and put into use, or, at least, recommended for implementation. The following sections describe techniques for gaining acceptance of the product(s) selected.

What is a product implementation strategy plan?

Nearly as many of the things that go into group decision-making occur outside the group as within it. Many of these involve attitudes and beliefs of people outside the group but who are or will be affected by the decisions made by the group. Hopefully, many of these "non-group members" will have been included at various points in the problem-solving process.

As the group nears the end of its work, its involvement with people outside the group needs to intensify. One of the last major activities of the problem-solving group will be to gain support for its decisions. Accomplishing this is the major function of a product implementation strategy plan.

A strategy plan outlines who needs to be contacted and for what reasons before implementation of a program can begin. The plan also assigns responsibility and specifies certain desirable outcomes. In addition, the plan attempts to identify possible problems which will occur before, during, or after implementation so that these problems can be headed off before they become critical. A strategy plan, then, becomes highly individualized, reflecting those things that the team members feel are necessary to assure quick, easy, and favorable implementation of individual products and over-all programs.

Having worked through all the steps of the model, the development of the strategy plan is relatively easy. Already at the disposal of the group is information about current conditions, agreement on overall goals by all who will be involved, evaluation information on products, and other things that people may wish to know before they commit themselves to a new product or technique.

All of this information, as well as other data, make up the strategy plan. The place to begin in developing this kind of strategy plan is to ask a series of "who-what-why-when-where-and-how" questions:

- Whose support is initially needed to gain acceptance of the product or program in the schools?
- Which teachers will be involved?
- When should the program ideally begin?
- Why was the product selected?
- How much time and money is involved in using the product?
- Where will the products be used and what arrangements have to be made?
- How will we know if the program is successful and whose responsibility will it be to evaluate the outcomes?

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- If the outcomes are not those intended, what kind of back-up plan is needed?

The answers to these kinds of questions form the foundation of the strategy plan.

The end is the beginning

Many of the questions asked in the preceding section also legitimately can be questions asked at the outset of any problem-solving activity. Asked at the beginning, they are more easily answered at the end!

This is one of the major reasons that the model recommended here encourages problem-solvers and decision-makers to start their process with some reasonably good idea of where they want to end up: overall goals. It also is one of the reasons why this workbook contains a series of practice exercises. These help any problem-solver work through the entire process on an experimental or trial basis before setting out doing the real thing. Particularly if the exercises are worked through in group situations, all involved will have a much clearer idea of the processes which are at work in any problem-solving activity.

This workbook was designed to equip the problem-solver with some proven techniques. It does not answer all the questions or provide all the possible ways to approach achieving goals. But now it is up to the reader to go out in the world to begin working toward his or her own goals.

IMPLEMENTING A SOLUTION:
PRODUCT SELECTION AND EVALUATION

Practice Exercise

The following is a practice exercise for
selecting products and
creating a strategy plan
for implementation and evaluation.

The purpose of this exercise for the implementation

There are two parts to this final exercise. The first activity is designed to take you through a systematic method for product selection based upon pre-established goals, statements of needs, action objectives, and evaluation criteria. The first exercise also provides an initial step for outlining a strategy plan to obtain support for the implementation of the product or program.

The second activity focuses on actually developing a strategy plan to conclude the problem-solving project.

How to do the practice exercise Part I: Product Selection

1. Use two or more products identified and reviewed in the Form K exercise in Chapter Four. Examine these products carefully to determine the degree to which they meet all or most of the criteria.
2. Select or reject these products based on their fit with the criteria.
3. Continue to identify, review, and select or reject these products based on their fit with the criteria selected.
4. Develop a list which describes the selected product's strengths and weaknesses, using as a basis for this evaluation the action objective and the program fact sheet.

How to do the practice exercise -- Part II: Implementation strategy plan

1. Using Form L, Strategy Plan Worksheet, begin listing the major activities necessary for obtaining support and implementation of the plan. Refer to the "Constraints and Positive Forces" section of the fact sheet as one guide, along with other information collected during the needs assessment phase.
2. To aid in identifying necessary activities, ask a series of "who-what-why-when-where-and-how" type questions.
3. After these activities have been listed in the first column assign responsibility for the activity to specific people in the second column. In the third column, list specific steps which must be followed to complete each major activity successfully.

4. Establish a time line for completing each specific step of the implementation. Often dates are assigned for both beginning and completing a specific task.

5. In the next to last column of Form L, list anticipated outcomes for each of the activities. These become the basis for evaluating the success of the effort.

6. In the last column state how the anticipated outcomes will be observed if they occur. If the anticipated outcomes are observed the implementation will be considered successful.

An example of a strategy plan is included for reference.

FORM L

STRATEGY PLAN WORKSHEET

Use this form as a worksheet to develop a plan for gaining support for the selected product, for implementing the product, and for evaluating its success.

Major activities required to obtain support for implementation	Person responsible	Steps needed to implement product/program	Time-Line (BY:)	Anticipated outcomes	Evaluation methods

EXAMPLE

FORM L

STRATEGY PLAN WORKSHEET

Use this form as a worksheet to develop a plan for gaining support for the selected product, for implementing the product, and for evaluating its success.

Major activities required to obtain support for implementation	**Person responsible**	**Steps needed to implement product/program**	**Time-Line (BY:)**	**Anticipated outcomes**	**Evaluation methods**
Obtain support and approval of participating teachers.	Site coordinator	Meet with teachers.	Sept.	Teachers will examine and approve.	Official approval on file.
Obtain support and approval of administration (principal, superintendent, board of education, etc.).	Site coordinator, team members	Meet with appropriate individuals, provide documentation and rationale.	Sept.	Individuals will go on record and approve.	Correspondence on file.
Obtain support of other groups or individuals (e.g. PTA, community groups, etc.).	Site coordinator	Series of meetings.	Sept. Oct.	Groups will know of new materials to be used and approve.	Meeting notes and/or official approval on file.
Identify role each participating teacher will plan in implementation.	Site coordinator, team members	Series of meetings.	During and end of semester	Teachers will become familiar with materials.	Meeting notes and outcomes on file.
Coordinate and inform all faculty of implementation activities.	Site coordinator, team members	Meet with teachers; inform via newsletter, etc.		All faculty will be familiar with materials.	None required
Provide for on-going use of the materials after initial implementation.	Site coordinator, team, other interested teachers	Meet with team and other interested teachers		Participants will justify further implementation or rationale for dropping materials.	Materials evaluated by commercial test or other evaluation method.

REFERENCES

Committee on Evaluation of Media Programs, Evaluating Media Programs: Districts & School: A Method & An Instrument. Washington, D. C.: Association for Educational Communications and Technology, 1976.

Craig, Robert L., Ed., **Training and Development Handbook: A Guide to Human Resource Development,** 2nd. Ed. New York: McGraw-Hill Book Company, 1976.

Davis Robert H. and Alexander, Lawrence T., **Guides for the Improvement of Instruction**. East Lansing, Michigan: Michigan State University, 1977.

Herem, Maynard A., "A Technical Instructor's Method/Media Selection Guide". **Training and Development Journal**, 32:8 (August, 1978): 44-48.

Guthrie, Eileen and Miller, Sam, **Making Change**. Minneapolis: Interpersonal Communication Programs, Inc., 1977.

Etzioni, Amitai, **Modern Organizations**. Englewood Cliffs, New Jersey: Prentice--Hall, Inc., 1964.

Farace, Richard B., Monge, Peter R., and Russell, Hamish M., **Communicating and Organizing**. Reading, Massachusetts: Addison-Wesley Publishing Company, 1977.

Stolovich, Harold. 'Needs Assessment in the Classroom: Pinpointing Priority Problems,' **Educational Technology** 18:26-28, August 1978.

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Bibliography

Local

Armstrong, Terry R.; and Others. **Career Education: An Opportunity for Reassessing and Redesigning Local Curricula**. American Institutes for Research (AIR), The Santa Clara Unified School District, and several other California School Districts in the Development and Implementation. California. March 1974.

> The purpose of the symposium was to describe the cooperative efforts of the American Institutes for Research (AIR), The Santa Clara Unified School District, and several other California School Districts in the Development and Implementation of a career education curriculum. "Career Education Implementation in the Santa Clara Unified School District" by Norman Carter focused on elementary classroom challenge in infusing career education in all these classrooms. James A. Dunn FRCM AIR presented an overview of the federally funded AIR career education development project, which was charged with the development of a comprehensive career education curriculum that could serve as a master resource for school districts introducing career education into their programs. John Kroll of AIR described the development and characteristics of the AIR instructional units that show how career education can be adapted into the traditional curriculum, teacher training for career education instruction was discussed by Jay Egan of AIR; the basic implementation strategy used was a workshop/practicum format. Terry Armstrong of AIR described the formative and summative evaluation procedures used for the annotated Career Education Bibliography, Instructional Objectives Catalog, Curriculum Guides, Sample Lesson Modules, and Teacher Training Materials. (ED101215).

Bank, A.; Elvenstar, D.; and Bastone, M. **The New CSE Needs Assessment Kit**. Center for the Study of Evaluation, Los Angeles, California.

> The New CSE Needs Assessment Kit is a revised and expanded version of the CSE Elementary School Evaluation Kit: Needs Assessment, published by Allyn and Bacon, 1972. It incorporates many of the desirable features of the earlier kit while simplifying some of the procedures and adding new options. The revised kit contains guidelines and resources that make it appropriate for use by educators on both the elementary and secondary levels. Additionally it can be adapted for classroom, school or district application.

Battelle's Center for Improved Education. **The Battelle Needs Assessment Survey**. Columbus, Ohio.

> This is a comprehensive survey that is based on stated goals and conditions and which may be used to elicit information for decisions from students, faculty, administrators, parents, and the community. Respondents express an opinion about what should exist and what actually does exist, the difference being expressed as "need." A complete service for determining, ranking, and interpreting needs is available from CIE.

Berrie, Phillip J. "Assessing Instructional Needs in Your District." **The Clearing House** 50 (January 1977, No. 5), pages 221-222.

The article suggests that there is not a prescribed plan to follow that will guarantee a successful needs assessment for a particular school district. However, with careful planning, serious intentions, and a commitment of resources, a needs assessment can produce worthwhile results. Perhaps the most valuable outcomes are (1) the communication that it encourages among educators, community members, and students, and (2) the identification of what is occurring in the schools which, in turn, identifies the gaps in educational outcomes and processes. Without the formal procedures associated with needs assessment, the coordination and motivation to accomplish these ends often would be missing.

Beverly Hills Unified School District. **Educational Needs Assessment**. Eric Document Reproduction Service, Bethesda, Maryland. 1972.

This is a questionnaire which serves several purposes: respondents can indicate their requirements for information concerning schools, rank goals and objectives, and differentiate between home responsibilities and school responsibilities as influences on certain aspects of a child's development. The final section of the questionnaire is designed to determine the level of confidence in and support of the total educational program in Beverly Hills. The questionnaire was developed for a project to determine goals, objectives, and priorities for the Beverly Hills Unified School District. (ED072073).

Borman, Christopher; and Others. **Teacher Directed Model for Career Education Implementation**. Austin, Texas. May 1975.

Intended as workshop guidelines, the model for career education implementation contains six modules which outline the procedure for integrating career education into the instructional process, and describes a multi-media approach to guide administrators through the developmental process. Module One, Preparation for District Career Education Implementation, provides an overview of career education for key school administrators and outlines a positive plan of action to implement a K-12 career education program. Module Two, Development of School District Goals and Objectives, outlines realistic goals and objectives for career education products and processes. Module Three, Conducting and Interpreting Career Education Needs Assessments, pertains to instruments for conducting assessments and materials for interpreting their results. Module Four, Building Staff Awareness and Orientation, provides guidelines for a presentation to assure staff awareness of the career education concept. Module Five, Processes and Resources, suggests commercial and teacher developed materials and provides guidelines for a slide/tape presentation demonstrating the diversity of approaches to career education curriculum infusion. Module Six, Implementation, discusses teachers' development of plans for career education curriculum infusion by grade level and subject matter area and the selection of faculty teams to insure sequential curriculum change. (ED110724).

Bowers and Associates. **Guide to Needs Assessment in Community Education Programs**. Reston, Virginia. January 1976.

Guidelines for implementing a needs assessment of community education programs are provided for local educational agencies and States administering community education programs. The methodology presented emphasizes coordination with other community organizations as an essential component of community education. It includes specific procedures for identifying needs, setting priorities, and relating them to the community education program on a continuing basis. The needs assessment process requires the completion of six major steps: (1) identifying roles and functions of the people involved; (2) developing a common language to identify needs; (3) finding the needs through existing information and surveys; (4) measuring and ranking the needs; (5) setting priorities; and (6) stating objectives and translating needs into programs. Specific procedures for each step in the needs assessment process are outlined and supported by sample forms and data sheets. Sample forms are also provided for describing the needs assessment process in a grant application. Needs assessment references are included.

Bridgewater-Raritan Regional School District. **Comprehensive Community Education Planning Study**. Somerset County, New Jersey. 1975.

This study examines a number of community characteristics that affect the development of a community education program in the central New Jersey Bridgewater-Raritan school district and some administrative and cost benefit models that are utilized in community conditions are population, vocational training of population, educational system enrollments, district facilities and staff, and the major regional industrial make-up.

Brieve, Fred J.; Johnson, A. P.; and Young, Ken M. **Educational Planning**. Worthington, Ohio. Charles A. Jones Publishing Company, 1973.

In this book, the authors have tried to delineate and explicate planning as a rational process based on sound information and good research. They have developed and presented materials that enable the administrator to convert rational process into viable, practical management procedures. By choosing the emphasis planning as an administrative process, the authors have endeavored to serve the needs of those who face diverse planning problems in local school districts. The processes they advance are well suited to the task of program-financial planning, particularly to the task of allocating scarce resources to predetermined educational objectives in school districts.

Brittingham, Barbara E.; and Netusil, Anton J. **Parallel Needs Assessments Among Small, Rural Districts as a Basis for Cooperative Planning**. Paper presented at the annual meeting of the American Educational Research Association. Chicago, Illinois. April 1974.

The purpose of the project was to identify common curricular needs among seven small contiguous midwestern school districts by means of parallel needs assessments conducted independently by each district. Operating under a state finance plan in which school spending is tied directly to student enrollment and faced with a decreasing number of students. The districts were desirous of avoiding or postponing consolidation. Independent parallel needs assessments provided a method of cooperative planning which would allow them to retain their autonomy and yet share resources for those goal areas which were identified as common needs. (ED091410).

Module One, "Project Management Executive Orientation," is the first part of a learning package in project management. It is concerned with providing an orientation to project management for top-level administrators in local education agencies and is divided into four lessons. Lesson 1, Building Conviction, identifies the characteristics of a project and a project management. Examples are given, and the advantages and disadvantages of such a program in local school systems are discussed. Lesson 2, Organizational Structuring, presents the organizational placement of projects in local education agencies, and in it the requirements for incorporating project management capabilities into local education agencies are discussed. A plan for installing project management capability is also presented. Lesson 3, The Life Cycle of a Project, identifies the guidance necessary in planning a project. A projection of possible asistance that might be required for implementing a project is cited, and suggestions for phasing out a project are discussed.

Module Two, "Project Management Basic Principles," is concerned with providing acting or potential project directors with the basic skills and knowledge needed to manage a project in his local educational setting.

Module Three, "Proposal Development," is designed to assist local school district personnel in the management of project proposals and covers the four major phases of proposal management: proposal planning, preparation, operation, and termination. It also includes a bibliography and glossary.

Burns, Robert L. Educational Goals for the Future (1980's). SWEP Product Evaluation Report 2. Dallas, Texas: Dallas Independent School District.

This manual explains a multi-district planning project involving the Dallas and Ft. Worth Independent School Districts. The plan was designed to ascertain the **need for** and **feasibility of**, and to formulate preliminary plans for another Skyline-type educational system to serve the Dallas-Ft. Worth metroplex in the decade of the 1980's. The term "Skyline" refers to a DIST comprehensive high school and career development cluster opened in 1971. The major purpose of this report is to scrutinize the research methods and analytical schemes and to communicate the result of SWEP objective number two - **to determine constituency priorities relative to the educational programs and processes of the future**. The manual contains a list of tables, an executive summary, an overview, a review of literature, methodology, results, a bibliography, and a lengthy appendix on results.

Calhoun, Olivia H. **Teacher's Manual for the Career Development Curriculum Guides, 7th and 8th Grades.** District of Columbia Public Schools, Washington, D.C. Department of Career Development: Metropolitan Education Council for Staff Development, Washington, D.C. 1972.

To help teachers make effective use of ten curriculum guides in career education for the seventh and eighth grade levels, the manual comments upon several topics: the career development philosophy, the basic ingredients of the D.C. program, the roles of the classroom teacher and the guidance counselor in the program, and the setting for the program's implementation. The manual also describes the characteristics and organization of the guides. Suggestions for planning ahead include a ten-page Grade 7 outline plan for implementing module 1 (a career cluster). Methods of introducing the curriculum to students and parents are discussed, and the importance of involving the community in classroom activity is stressed. The document concludes with chapters on career development activities and the evaluation of student learning. The ten curriculum guides are divided into clusters: consumer and homemaking (CE 001 042); communications and media (CE 001 043); fine arts and humanities (CE 001 044); construction and environment (CE 001 045); agri-business, natural resources, marine science (CE 001 046); public service occupations (CE 001 047); health occupations (CE 001 048); manufacturing, marketing and distribution, business and office occupations (CE 001 049); transportation (CE 001 050); and hospitality, recreation and personal service occupations (CE 001 051). (ED089003).

Cummings, C. Peter, and Cook, Desmond L. **Educational Project Management Instructional System.** Philadelphia, Pennsylvania: Research for Better Schools, Inc., 1973 and 1974.

The EPMIS package includes three instructional modules and some supplementary materials. Each module deals with a distinct aspect of project management and includes complete directions for use which make the materials self-instructional. The lessons are structured for use by both individuals and groups. Each lesson within a given module contains introductory materials to orient the reader, tests to help the learner measure his progress, specific instructional objectives, reading references, and other materials.

Cunningham, Luvern L. **Third Parties as Problem Solvers: A Case Report.** Paper presented at David W. Miner Memorial Conference. Evanston, Illinois. November 1974.

This paper describes the Detroit Education Task Force and its efforts to develop a problem-solving agenda for the Detroit Public Schools. The paper describes the background and history of the task force and analyzes its relationship with the Detroit Central Board of Education and with administrators of the Detroit school system. The educational impact of "third party" groups in general is discussed, followed by a detailed examination of the Detroit Education Task Force and its function. A final section presents a number of observations and conclusions about the experience of the task force and discusses the possible benefits of developing similar "third party" groups in other school systems. (ED102693).

Dallas Independent School District. **Dallas' Model for Shared Decision-Making.** Dallas, Texas. 1973.

Based on the premise that the decision-making process is as important as the decision itself, the Dallas model provides a framework for involving all members of the educational community in decisions. This model is a case study showing how this approach was developed and used in the Dallas school system.

The goals involved were initially developed by the board. In order to effectively implement these goals, a program entitled "Operation Involvement" was set up.

This was a systematic effort to get assistance from the educational community in determining program goals, assessing needs, and establishing priorities and budgeting resources.

Dayton, Charles W.; and Others. **Systematic Approach to Guidance; Assessing Desired Outcomes: A Competency-Based Staff Development Training Package.** American Institutes for Research in the Behavioral Sciences, Palo Alto, California; Mesa Public Schools, Arizona. 1976.

This module is a competency-based staff development training package which focuses on the assessment of desired outcomes in career guidance. It is part of a long-range project designed to present a comprehensive approach to career guidance, counseling, placement and follow-up. As a staff training package, this module is directed toward developing planning competencies by involving staff participants in designing, conducting, and reporting on a desired outcomes assessment. The module goal is for the participant to produce a written statement, derived from empirical data, of desired career planning and development outcomes for youth in the target group of the program being planned. (ED124823).

DeMont, Bill, and DeMont, Roger. **Accountability: An Action Model for the Public Schools.** Homewood, Illinois: ETC Publications, 1975.

Beginning with a theoretical framework for accountability, the authors cover the subject of accountability from both an internal and an external point of view. Insight into the action phase of accountability practices in the school district. Also included are a selected bibliography, an appendix which includes checklists for use with the various agencies involved in accountability programs, and an index.

Demuth, Joyce. **The Use of Elementary School Goals in a Grade Level Needs Assessment.** California University, Los Angeles, California. June 1973.

This study is one part of an elementary school evaluation kit and it deals with the initial step of needs assessment -- that of helping the elementary principal determine which educational goals should be examined at this school. The report investigates the priority ratings of educational goals by parents and teachers of an urban community more specifically. It examines the similarities and differences in ratings of 106 educational goals by parents and teachers of two elementary schools serving differing socioeconomic levels. The priority ratings were made on the basis of achievement of a goal at a specified grade level. Results indicate generally high agreement among the total sample of parents and teachers regarding the top 20 goals. Regardless of group, school, or grade, affective goals were consistently among those that received the highest ratings. Yet materials for assessing and planning in terms of these goals are either lacking or inadequate. (ED082356).

De Novellis, Richard L., and Lewis, Arthur J. **Schools Become Accountable: A PACT Approach.** Washington, D.C.: Association for Supervision and Curriculum Development, 1974.

This publication provides a general guide for establishing an acccountability plan in individual schools through the formation of a Planning Accountability Team (PACT). The first section of the document traces a brief history of accountability, relates the press for accountability to concurrent developments in schools, and summarizes present state legislation regarding accountability. The second section contains four guidelines which should underlie any plan for educational accountability. The third section provides a practical organization for implementing accountability through the establishment of PACT. (ED090686).

Drier, Harry N., Jr., Ed.; Marinez, Nancy S., Ed. **Career Education Needs and Assessment. The Administration of Career Education: Module 3.** Ohio State University, Columbus, Ohio. 1975.

The module is one of a series of eight developed to provide inservice training for administrators of career education programs. The focus of the module is on the determination of needs as a prerequisite for implementation of programs in career education. The major lesson topics are: (1) the importance of needs assessment in career education, (2) needs assessment instrumentation, and (3) analysis and utilization of needs assessment data. The introduction provides a brief overview of the purpose and rationale for the module. Goals and objectives are presented together to show the interrelationships, flow, and depth of coverage. Each of the three lessons is organized around a module goal, supportive content, and learning activities, with accompanying transparencies, task sheets, and handouts. A section of supplementary readings also appears. (ED115920).

Dunn, James A. **Career Education Curriculum Development: Grades K-9 Final Report.** California. October 1974.

The American Institutes for Research (AIR) Career Education Curriculum Project for grades K-3 was the first federally sponsored career education project to develop a comprehensive career education curriculum broadly available to the public. The 28-month project, carried out in cooperation with nine California school districts, emphasized creating an economically feasible curriculum and using ongoing input from a wide variety of teachers, administrators, and practicing educators. Chapter 1 of the final report provides an introductory background and objectives of the project, while Chapter 2 provides an overview of the project plan. End products of the project were 10 handbooks: Five designed for school district planning (Advisory Panel Proceedings, Instructional Objectives Catalog, Annotated Career Education Bibliography, Options/Guidelines for Dissemination and Implementation of Career Education, and Evaluation Studies) and five for use at the classroom level (Three Curriculum Guides for Teachers, Sample Lesson Units, and A Resource Book of Low Cost Materials). Chapter 3 of the report summarizes the more important findings of product evaluation and field test efforts; the final chapter is concerned with future impact of the project and produce dissemination. One-third of the document consists of appendixes listing consortium participants and panel members (Advisory, Development, and Review Panels). (ED101213).

Eastmond, Jefferson N. **An Assessment of Educational Needs in the San Francisco South Bay Area of California.** Project BASICS. South Bay area of California. March 1971.

Project BASICS attempts to determine which of the successfully demonstrated reading and mathematics strategies will produce mastery learning for different types of students in terms of their individual characteristics and needs. It focuses on the discovery and implementation of alternative strategies for mastery learning with an innovative school setting. The overall objective is to provide solution strategies for students (K-3) to result in 90 percent of the project students achieving at the same mastery level as the top 20 percent of California students in normal classroom situations. The project seeks to resolve the problem of reading. Communications skills and mathematics deficiencies by using the seven basic steps of the scientific method in its system approach to education planning and problem solving. This booklet, the first of a series, is devoted to step one: identify critical needs. Subsequent booklets deal with the succeeding steps. Described are the steps taken to identify needs in the South Bay area. These steps are presented graphically and each is treated separately. They are: (1) identify concerns about primary education, (2) isolate and publish the critical needs, (3) formulate an educational operational philosophy, and (4) compile a fact-policy data bank to identify concerns, (5) opinion poll surveys were made of parents, pupils, teachers, and citizens, and (6) surveys were made of research experts, and forecasts, these data were then (7) analyzed and (8) utilized as a base for conducting interaction sessions on the data and the project goals. (ED082304).

Defining Critical Needs into Problems and Constraints in the San Francisco South Bay Area of California. Project BASICS. South Bay Area of California. May 1971.

Project BASICS attempts to answer questions about which of the best reading and mathematics strategies will produce mastery learning for what types of students in terms of their individual characteristics and needs. It focuses on the discovery and implementation of alternative strategies for mastery learning with an innovative school setting. The overall objective is to provide solution strategies for students (K-3) to result in 90 percent of the project students achieving at the same mastery level as the top 20 percent of California students in normal classroom situations. The project seeks to resolve the problem of reading, communication skills, and mathematics deficiencies by using the seven basic steps of the scientific method in its system approach to education planning and problem solving. This booklet, the second of a series, is devoted to step two: translate needs into problems and constraints. Subsequent booklets deal with the succeeding steps. Described are the steps taken to identify the problems in the South Bay area. These steps are presented graphically and each is treated separately. (ED082305).

Education Improvement Center. **Community Education Need/Resource Assessment Guide Book.** Pitmen, New Jersey. 1974.

This guide book is aimed at "planning strategies, training programs, and resource materials" for assessing needs of the community. The primary emphasis in the guide book is on the training of volunteers. A series of visual graphics are illustrated with accompanying text overviewing the rationale for the conduct of an extremely comprehensive needs assessment.

Education Service Center Region 17. **Teacher Guide for Career Oriented Education. Implementation Workshop: Phase I (Readiness).** Lubbock, Texas. 1976.

> Part of a 4-volume set constituting a model to assist all school districts in Region 17 (Texas) in infusing comprehensive career oriented education into their existing instructional programs by 1980, this teacher guide contains materials for the first part of a 3-phase program designed to move the participant through a series of informational steps to a proficiency in developing comprehensive outcome based career oriented education topics. Section A provides awareness information on career education with special emphasis on the Texas state plan for career education. Section B presents an overview and indepth study of the seven components of career education. Section C (63 pages) introduces available occupational resources. Sections D and E deal with two methods of involving the community in the career oriented education program, i.e. resource persons and field trips. An assessment of student needs discussed relative to career education is conducted in Section F. In Section G, participants are introduced to and given experience in using the curriculum infusion format developed for the program. Skills learned in this section will be used in Section H in which participants have an opportunity to adapt topics from the Educational Service Center career oriented curriculum. (ED130070).

Educational Innovators Press. **Assessing Educational and Learner Needs Learning Package.** Tucson, Arizona: Educational Innovators Press.

> This packet presents the steps in conducting a needs assessment. These include: identifying learner goals, assessing performance on the goals, and organizing to achieve goals not being reached. Four filmstrips and accompanying cassette tapes are used to present an overview and the three steps of the needs assessment procedure. A booklet on needs assessment is included.

——— **Evaluating Educational Programs.** A Learning Package. Tucson, Arizona: Educational Innovators Press.

> Utilizing three filmstrips with accompanying cassette tapes, this packet describes a three-dimensional structure which can be used to identify variables related to behavior, instruction, and people who influence educational outcomes. A procedure for determining program effectiveness is presented, and a booklet on evaluation is included.

——— **Management by Objectives.** A Learning Package. Tucson, Arizona: Educational Innovators Press. 1974.

> Through four filmstrips and accompanying cassette tapes, this packet presents a system for specifying objectives, implementing objectives-managed programs, and evaluating their impact. Two booklets on management by objectives are included. (ED125093).

——— **Measurement Instruments and Proficiency Levels.** A Learning Package. Tucson, Arizona: Educational Innovators Press. 1974.

> This packet presents guidelines for developing or selecting techniques for measuring cognitive, affective, and psychomotor behavior. Guidelines for

establishing realistic performance levels are provided. Four filmstrips and accompanying cassette tapes are included, along with manuals on coding and selecting test items and affective measures.

_______ **Preparing Performance Objectives.** A Learning Package. Tucson, Arizona: Educational Innovators Press, 1973.

Skills in both writing and evaluating performance objectives are developed through eight filmstrips and cassette tapes. In addition to the commonly used elements -- learner variables, time, and prerequisites are explored. Booklets on writing objectives and on hierarchies for goals are included.

_______ **Preparing Process Objectives.** A Learning Package. Tucson, Arizona: Educational Innovators Press, 1973.

This packet outlines the steps to be used in describing activities of administration, instructional management, and support in instructional programs. The performance objective model is used indealing with these process objectives. Two filmstrips with tapes and one booklet on writing process objectives are included.

Educational Systems Associates. **Needs Assessment Procedure Manual.** Austin, Texas: Educational systems Associates, Inc., 1974.

This is a manual designed to aid school administators plan a needs assessment which when carried out will permit a determination of what schools should be doing that they are not doing. It is a detailed procedural manual for planning needs assessment and includes: an overview of needs assessment, suggestions for determining needs, suggestions for identifying resources, and a sample report of needs assessment. References are included. (123700).

_______ **Program Evaluation: Workbook and Training Manual.** Austin, Texas: Educational Systems, Inc., 1974.

Designed to aid the professional educator in planning and evaluating projects and programs, this document focuses on the skills required to produce valid and reliable data for decision making. It covers the critical technique components of the comprehensive planning process. Included are an introduction to planning and sections on: performance objectives, general assessment techniques, assessment techniques for the affective domain, process objectives, monitoring systems, needs assessment, and evaluation. Exercises, activities, and assessments are provided for most sections.

Educators Assistance Institute. **The Priority Counseling Survey.** Santa Monica, California: Educators Assistance Institute, 1972.

This is a compilation of questionnaires on career interests and counseling needs for junior and senior high school students done by Thomas W. Smith and Clarence D. Johnson. It is useful to anyone who is doing surveys where such questionnaires are needed. Follow-up materials on career choices are available from Educators Assistance Institute.

English, Fenwick, W. **Needs Assessment: A Focus for Curriculum Development.** Assoc. for Supervision & Curr. Development, Washington, D.C., 1975.

This booklet focuses on needs assessment. A process for identifying and defining valid curriculum, instructional, and management objectives. It also presents a means for establishing controls over curriculum development at the local level whether it be a school district or an individual school. Part 1 explains the (a) fundamentals, (b) rationale, (c) accountability, and (d) critical assumptions of needs assessment. Part 2 discusses techniques utilized by the curriculum developer in doing a needs assessment. Included among subjects covered are the following: (a) generic steps of needs assessment, (b) role of the teacher association/union, (c) goal derivation, validation, prioritization, and translation, (d) development and validation of performance objectives, (e) gap or need statements, (f) fund strategies, and (h) reassessing gaps via feedback. Part 3 presents the curriculum development cycle using a needs assessment base. Methods include a system approach and Individually Responsive Curriculum (IRC). Part 4 offers answers to some critical questions about the needs assessment process. A glossary of terms is included. (ED107619).

Fadale, LaVerna M. "Assessment of Career Awareness of Elementary School Children." **Journal of Career Education**, Vol. 1, No. 4, pp 80-6, Spring 1975.

The study indicates that a degree of career awareness does exist among elementary school children, differing with such variables as age, sex and socio-economic level. The instrument developed for this study has utility for assessment of needs of educational programming/curriculum building, and of the effectiveness of staff development activities. (EJ117116).

Fresno City Unified School District. **Summary: PROJECT DESIGN, Educational Master Plan.** Fresno, California: Fresno City Unified School District, 1969.

This is the first of three volumes which summarize the activities of PROJECT DESIGN, a project to develop an interagency planning model based on an assessment of needs in the Fresno area. Basic assumptions about the community and the future educational needs are outlined and a model that emphasizes alternative solutions to problems is presented. The document includes specific recommendations, definitions of responsibilities, management options, and alternatives for Fresno education. PROJECT DESIGN produced 35 other documents on various aspects of the total assessment program. Most of these are also available in microfiche from ERIC. (ED038775).

Conclusions from Needs Assessment Publications: PROJECT DESIGN. Washington, D.C., 1968.

This report lists the major conclusions of 28 publications prepared by PROJECT DESIGN, funded under ESEA Title III, to assess the dimensions of educational needs in Fresno, California. Following the presentation of conclusions by source, specific conclusions are arranged and listed by topic in the following categories: (1) objectives, planning, and evaluation; (2) adult education; (3) vocational education; (4) curriculum; (5) instructional methodology; (6) staff and staffing patterns; (7) inservice training; (8) guidance and counseling; (9) ethnic minorities; (10) external and internal communication; and (11) finance and facilities. Each conclusion listed in this section is cross-referenced with the appropriate project publication. (ED038767).

Gustafson, Richard A.; and Others. **Educator's Handbook for Secondary Career Guidance Programs: New Hampshire Guidelines.** Keene, New Hampshire, 1975.

> The handbook is designed to aid the educator-counselor in formulating and implementing a workable secondary school career guidance program. A brief introduction presents definitions, the philosophy of career development on which the program is based, and a glossary of terms. Information is organized into 10 sections. Needs assessment, the first section, explains the planning cycle, describes activities in the process, and contains a pool it items for constructing a needs assessment questionnaire. The second section, program organization and management, addresses the sequence of activities needed in organizing a career guidance effort. An extensive collection of student learning activities and other materials for use by teachers and counselors are contained in the third section. The tested activities were developed around the three major components of the New Hampshire Conceptual model of career education: attitudes and values, decision making, and world of work. The remaining seven sections of the handbook detail the processes involved in incorporating career services, placement services, program evaluation, and follow-up services into the program. Planning steps and models, sample materials, and reference lists and sources are included throughout these sections. (ED118888).

Hamilton, David L. **Battelle Survey of Educational Needs for Elementary and Secondary School Systems.** Columbus, Ohio. 1972.

> The Battelle Needs Assessment Service provides a school district with a method for identifying and documenting needs for assigning priorities, and for compiling information in a form which can be understood and utilized by both educators and laymen for district-wide planning.

Hanson, Helen B.; Gavzy, Rita. **Dale Avenue Performance Objective Model Pre-Primary—Primary Performance Objectives Prekindergarten Through Grade Three: Manual; Record Book.** New Jersey. 1974.

> The Dale Avenue Early Childhood Education Project was developed in the Dale Avenue School in Paterson, New Jersey through funding from the Elementary Secondary Education Act Title III. The project was validated in 1973 by the standards and guidelines of the U.S. Office of Education as innovative, successful, cost effective, and exportable. As a result, the New Jersey ESEA Title III program is funding the project as a demonstration site. The Dale Avenue Performance Objectives, it is stated, were an outgrowth of a needs assessment. These Performance Objectives were written to provide children with experiences which are needed in order to function eventually in the formal academic areas of reading and math. Beginning with the most elementary skill which a child must master in order to perform the prekindergarten classroom, the Performance Objectives are considered to take each child through a developmental hierarchy of skills. A record keeping book to go along with the Performance Objectives is included with the Performance Objectives act as the teacher's pretest and as a posttest. A summary record goes along with each child to his next class. This is stated to help the new teacher to ascertain what the child is able to do and to help the child to continue at his own rate. (ED110543).

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Heathers, Glen and Taylor, B. L. **Selecting an Educational Improvement Program.** Research for Better Schools, Inc., Philadelphia, Penn., 1975.

A six step model for arriving at the choice of an improvement program: (1) identifying the area where improvement is needed; (2) specifying aims in the area; (3) assessing shortcomings in accomplishing these aims; (4) determining likely causes of the shortcomings; (5) identifying resources that could remedy the shortcomings; (6) surveying local factors favoring or opposing adoption of any desired resources.

To enable local educational agencies to do a more effective job of planning improvement programs of any kind, including selecting the appropriate instructional materials to carry out the program.

________ and Brown, Mary V. **Training for Leadership in Local Educational Improvement Programs. Unit 3. Task Flow for Designing and Conducting Local Educational Improvement Programs.** Research for Better Schools, Inc., Philadelphia, Pennsylvania. 1975.

The purpose of this unit is to give an introduction to the phases of a change program rather than to give a specific training for leadership in conducting each phase. The task flow is presented as an application of a general problem-solving model. A person who completes this program should be able to define the problem-solving process, list its essential components, and illustrate each with examples drawn from everyday life; list the phases in a task flow for planning and conducting a local educational improvement program; list steps in conducting a needs analysis as a basis for deciding on a change program, specify requirements to be met in a search for national and local resources that could meet needs that have been identified; specify general requirements for selecting a change program that promises to meet needs that have been identified; outline requirements to be met in designing a change program; specify kinds of preparations needed for installing a change program; specify requirements for analyzing and assessing the implementation of a change program; specify requirements for assessing the outcomes of a change program; and specify bases for deciding whether to abandon, change, continue, or expand a change program. (ED130427).

Hoeffner, R.; Bradley, P; Klein, S.; Alkin, M. **CSE/Elementary School Evaluation Kit: Needs Assessment.** Boston, Massachusetts. 1972.

Designed especially for the elementary school principal or elementary district administrator, the CSE assessment kit includes a set of comprehensive procedures and materials needed to gather information about student needs. The four major steps of the program are: (1) identifying goals for specific levels; (2) selecting tests to measure attainment in these areas; (3) administering appropriate tests; and (4) selecting those goals of prime concern. Requiring no specialized skills, the program features a wealth of well-researched information in practical and useable form. Participants (faculty, parents, board members and community members) study and rank a list of 106 educational goals. Options exist in choosing participants, in using mailed questionnaires or working with groups,and in deciding on critical areas.

Hoeffner, Ralph; and Others. **Report on the Field testing of the CSE Elementary School Evaluation Kit: Needs Assessment.** National Center for Educational Research and Development. Washington, D.C. 1971.

> This Evaluation Kit is a self-instructional package that provides a principal with all the procedures and materials necessary to conduct an assessment of his school's educational needs. This report describes the field testing of the Kit during the 1970-71 school year. California, national, and individual case study school samples were used. Participants were required to complete questionnaires on completion of each of the five Kit booklets. These questionnaires and their results are included in the report. Conclusions made on the basis of the field testing and recommendations for changes in the Kit prior to its final publication are presented. (ED058673).

________CSE Elementary School Evaluation Kit: Needs Assessment. Boston, Massachusetts: Allyn and Bacon, 1972.

> This kit, though designed to be used primarily by the elementary school principal, can also be employed by other school administrators. The primary document of the kit, the Guidebook, is composed of one introductory chapter and four instructional chapters that describe the procedures a principal can use in determining a needs assessment program. The chapters and their appendices, along with other components included in the kit (goal cards and rating mats, questionnaires, independent goal rating forms and goal rating tally sheets), also contain the materials needed for implementing the recommended procedures. They are designed to supplement the principal's information system with a set of specific procedures and materials for gathering relevant information about the needs of his school and his students. Detailed appendices are included.

________**Report on the Field Testing of the CSE/Elementary School Evaluation Kit: Needs Assessment.** Los Angeles: University of California, 1971.

> This report describes the field testing of an evaluation kit developed at the UCLA Center for the Study of Evaluation and tested during the 1970-71 school year. The kit itself is a self-instructional package that gives a principal all the procedures and materials needed to conduct an assessment of his school's educational needs. Data for the report were gathered by having participants fill out questionnaires after completing each of the five kit booklets. Questionnaires and their results are included in the report, as well as conclusions from the field testing and recommendations for changes in the kit prior to final publication. (ED058673).

Holmes School. **A System Design for Effective Education.** Mesa, Arizona: Holmes School, July 1971. (Mimeographed)

> This publication is divided into three parts, each one dealing with a different phase of needs assessment. Part I defines needs assessment and briefly discusses a system design for effective education. Part II focuses on the identification of generic needs of society, learners, and educators, and offers a method of reconciling goals and objectives with derived priorities. Part III centers on the needs of students at the Holmes School in the areas of reading, motor learning, arithmetic, and science. Two appendices include data for statement of societal needs and a description of needs of learners model.

Johnson, Rudolph; and McCollough, Tom; et al. **A Variety of Needs Assessment Instruments Created by a Participatory Planning Project in Palo Alto, California.** Project Redesign, Palo Alto Unified School District, Palo Alto, California. 1975.

> Since July, 1972, the Palo Alto Unified School District has been engaged in a comprehensive long-range planning project. In the process, many survey instruments have been created and used to gather information about the school system from all of the client groups: citizens, students, teachers, administrators, and classified staff. The survey instruments are: Needs Assessment (general), Administrative Needs Survey, Student/Teacher Relationships, Elementary Environment Alternatives, Budget Priorities.

Knight, Michael R. **Needs Assessment System: A Systematic Strategy for conducting a Student-Oriented Needs Assessment Study.** Tallahassee, Florida: Florida Department of Education, 1975.

> Developed for use by local education agencies, the Needs Assessment System is a manual which presents an alternative strategy for conducting a comprehensive and systematic assessment of student needs as a basis for educational program planning. Section I of the System manual discusses the process of needs assessment in terms of its purpose, its elements and characteristics, its anticipated results, and its relation to comprehensive educational planning. Section II provides an introduction to and an explanation of the content and format characteristics of the System. The needs assessment system itself is presented in Section III and has been designed using the techniques of system analysis. It presents a generic set of subfunctions, tasks, and subtasks to be performed in order to accomplish the first function of a six step planning model. Alternative strategies and resources have been provided for each of the specified tasks and/or subtasks.

______ and Project Manager and Principal Developer. **Needs Assessment Package - Florida State Department.** Needs Assessment Development Project. Tallahassee, Florida. 1975.

> The mission of the NADP is to develop, test, and produce a needs assessment package consisting of three primary products that have been designed to assist local school district personnel plan and conduct a comprehensive and systematic educational program planning and evaluation.

Kuuskraa, Velo A. **Needs Assessment.** Washington, D.C.: By the Author, 1971.

> This discussion draft outlines one approach to conducting a child-oriented needs assessment within a local school system participating in Project TREND. Included in the draft is a discussion of needs assessment, an overview of the essential tasks in conducting a needs assessment, a description of the proposed strategy, a description of the methodology used, analysis of the outcomes, determining priority goals and objectives, and translating the data derived for decision making and planning. The appendices include a sample needs assessment, a checklist for conducting needs assessment, worksheets and questionnaires.

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Kyle, James; and Others. **Political Involvement, Community Involvement; Career Education: An Experience-Based Social Studies Program, Volume III.** 1975. Minnesota State Department of Education, St. Paul, MN.

This collection of materials and ideas is designed for the high school student who wants to try to influence society. The guide provides background information and descriptions of experience-based learning activities for use by students as they explore political involvement opportunities in their communities. The purposes of the materials are to help students understand how to become involved in the political process and to teach them to use positive and negative political means to make the system respond to their needs. Section I deals with gaining political power through working for a political candidate. Topics discussed include choosing a candidate, volunteer workers, dirty tricks, campaign finances, voter registration, and election laws. Section II discusses some of the problems and methods for dealing with people and institutions who have power which they did not gain from the ballot box -- local governments, school districts, and business corporations, for example. In the third section suggestions are offered for working with various levels of government on specific problems. Articles on liberals, conservatives, privacy, and corruption are presented in Sections IV, V, and VI. Each section presents numerous informative articles, question-answer surveys, political relief exercises, project descriptions, suggestions for a daily journal, outlines for personal research sheets, goals and objectives, excerpts from relevant laws, and legal forms. (ED134491).

Lamont, Ken; and Cother, Bob. **Career Guidance--A New Direction for Bend Senior High School: Final Report.** Oregon State Department of Education, Salem Division of Community Colleges and Vocational Education. Bend, Oregon. June 1974.

The report describes the development of an experimental career guidance and education program for grades 10-12 which focused on including a decision making unit in the existing curriculum. The program goals were: to increase faculty members' ability to facilitate positive student self-concept development, to increase students' informational background in careers and to help them gain decision-making skills, to increase counselor effectiveness in career guidance and education, and to use the most successful aspects of similar Oregon high school career guidance programs. Three guidance counselors, the language skills staff (two teachers and one aide), a guidance committee, and the administrative staff worked with a target group of 80 academically disadvantaged sophomores in the language skills classes to test materials and techniques.

The major outcomes of the project (staff development and the instructional program) are described. A sample of the materials used in the curriculum is presented. A proposal for the guidance awareness program for 1974-75 and an evaluation of the program by a vocational rehabilitation counselor are also included. Appended are: a 13-item bibliography, pre-project surveys of sophomores and seniors, and the post-project study survey (including questionnaires and results). (ED126271).

Levy, Marc R. **Assessing Your Community.** Northwest Community Education Development Center, University of Oregon, Eugene, Oregon. 1975.

An overlay map shows individual pieces of information about the community to be displayed for a better understanding of the conditions that may influence the community education program. The overlay technique described utilizes a base map and a series of plastic overlays to handle the information gathered.

Lewis, Jean; and Others. **Implementation Guide to Career Education.** Vale School District. Vale, Oregon. 1976.

Designed as a component of a pilot career exploration project at Vale Middle School, Vale, Oregon, this guide is directed toward helping any school implement the concept of career education. The guide is divided into three sections. Section 1 offers ideas that give support to the background and justification for the concept of career education. The four basic components of career education are explained: this section also deals with the Oregon concept of career education and the importance of survival skills. Section 2 defines and describes career education in Vale School District #15. It explains how career education was first introduced, how Vale Middle School became a pilot school for career education, how the awareness program was developed, how the program was made possible, how receptive the program has been to the community, and the benefits derived to students. Section 3 attempts to combine all the experiences gained by District #15 in planning, developing, and implementing a career education program into a set of guidelines and suggestions for other districts. The appendix contains examples of curriculum materials, student career exploration questionnaire, evaluation of student needs assessment guide, evaluation of interdisciplinary guide, guidelines for advisory council for career education in District #15, workshop evaluation, community resource questionnaire on career education, evaluation of the community resource guide, and visitation questionnaire. (ED138801).

_____ **Student Needs Assessment Guide.** Oregon State Board of Education, Salem Division of Community Colleges and Career Education. Vale, Oregon. 1974.

Designed as a component of a career exploratory program at Vale Middle School, Vale, Oregon, the Student Needs Assessment Guide provides middle school teachers with an instrument to be used in helping students assess themselves as individuals and to match this assessment with current and expected roles in the adult world. The guide consists of two major components: (1) student needs assessment program goals/objectives and (2) resources. Major goals (pertaining to self-awareness, self-image, values, decision-making, student occupational potentials, career choice, work attitudes, employment skills, job requirements, occupational cluster, maintaining employment, employment trends, and leisure-time activities) are outlined in a three-column format which identifies suggested activities and resources (cross references to the appendixes) to be related to specific objectives. Over 450 pages of the document consist of appendixes, with major coverage given to Appendix A, classroom activities. The vast compilation of "hands-on" materials includes various forms, rating sheets, self-concept/personality checklists, interest and attitude surveys, emotional maturity self-tests, personal data sheets, evaluation checksheets, profiles, and experience and self-analysis questionnaires. Other appendixes contain references for films, filmstrips, kits and games, transparencies, and tapes, which are arranged in triple-column format with titles and descriptions, location, and appropriate user level. (ED110775).

Lincoln Public Schools, Nebraska. National Assessment of Educational Progress (NAEP) **Using National Assessment Procedures and Materials for Local Program Evaluation.** Eleanor Francke Vern Achtermann, Lincoln, Nebraska.

The National Assessment of Educational Progress (NAEP) is an information-gathering project which surveys the educational attainments of 9-year-olds, 13-year-olds, 17-year-olds and adults (ages 26-35) in 10 learning areas: art, career and occupational development, citizenship, literature, mathematics, music, reading, science, social studies and writing. Different learning areas are assessed every year and all areas are periodically reassessed in order to measure the changes that occur in educational achievement over time.

Lutz, Jack L. **NorBar Attitude Assessment Survey.** Chico, California: PACE Center, California State University.

Using this document, the educator can construct a survey instrument, administer it, process the data, and report the results. The survey produced will be based on items presented for the NorBar Assessment procedure to measure attitudes of students in grades K-8 and can be accomplished at a nominal cost.

Madison Public Schools. **Analysis of the Data.** Report of Project East Area Study for Tomorrow. (E.A.S.T.). Madison, Wisconsin: Madison Public Schools, March 1973.

This booklet provides a summary of data and information about the East Area schools from a variety of sources: parents, students, teachers, and other community members. Methods of collecting the information included both formal and informal techniques. Project E.A.S.T. data were used by the steering committee to determine priorities for the East Area schools, and a list of these priorities is included in the data analysis document. Further, a list of steering committee recommendations is provided.

______**Model for Needs Assessment.** Report of Project E.A.S.T. Madison, Wisconsin: Madison Public Schools. 1973.

Intended to provide guidelines based on experience gained during Project E.A.S.T., this report may be useful to people in similar high school attendance areas who might wish to consult these before conducting a needs assessment without regular local funding. General suggestions and plans for conducting one and two-year assessments are provided.

______**Some Goals of Education.** Report of Project E.A.S.T. Madison, Wisconsin: Madison Public Schools. 1973.

This booklet contains a list of some goals of education developed by various groups from the East School attendance area. The goals have been written in terms of characteristics and skills which an adult should have in order to live a satisfying and productive life. Within each major goal are some specific objectives which might be measured after a student leaves the school to live independently. Interview schedules for staff, teachers, students, parents, and citizens are also available.

______**Why a School?** Report of Project E.A.S.T. Madison, Wisconsin: Madison Public Schools, August 1973.

> By addressing the question, Why A School? in conducting a needs assessment for the East Area schools, multiple agencies who have an interest in the schools were involved. This is a report of how the various interest groups were involved, what was done during their involvement, and what resulted from their efforts. The document provides a good orientation to Project E.A.S.T.

Marvin, Michael D.; and Ferderbar, Joseph. **Intitiating District-Wide Curriculum Planning.** Paper presented at the Annual Meeting of the American Educational Research Association, Chicago, Illinois, 1974.

> This paper examines the steps and processes involved in initiating district--wide curriculum planning. The planning process itself is described, as well as the responsibilities for planning delegated to all those involved. A flowchart is provided to examine the relationships among various aspects of the curriculum planning process. Specific information about the Neshaminy School District's efforts to implement this process is provided. Appendices include instructional objectives, criteria for using indicators of performance, and some data of the Neshaminy School District. (ED094455).

Melton, Raymond G. "Needs Assessment: Common Sense in Education." **Catalyst For Change,** Vol. 4, No. 1, pp 9-11, 26, Feb. 1974.

> The needs assessment process must begin first with the determination of "what should be." The next process in needs assessment is the determination of "what is." The gaps or discrepancies between "what is" and "what should be" are the needs of the school or district. The results of this needs assessment must then be viewed in terms of the resource costs needed to meet the needs. (EJ105840).

Mercer, Jane R. **Evaluating Integrated Elementary Education: Technical Manual.** Report of Program Research in Integrated Multiethnic Education (PRIME). Riverside, California: University of California, September, 1973.

> As a result of PRIME this manual was produced and it constitutes a program to evaluate the extent to which multi-ethnic elementary schools are achieving integrated educational programs. The emphasis is on assessing current status and charting future directions. The manual is complete with extensive reports on instruments, their characteristics, and results of their use; reports of the successes achieved during PRIME; sample questionnaires, profiles and data outputs from computer programs.

Merrill Area Public Schools. **Educational Needs Assessment: A First Step in Long-Range Planning.** Merrill, Wisconsin: Merrill Area Public Schools, 1973.

> This is a handbook designed to answer questions about legislative requirements for needs assessment in the public schools. Two committees were set up -- a Quality Assurance Committee and an Educational Needs Assessment Committee. The duties and responsibilities of these and their subcommittees are listed, and copies of each committee's report are included. Projections for the future are provided. Addenda include surveys, public addresses, senate bills, and goals.

Miller, Donald R. **A Format for Specifying Need and/or Problem Relationships.** San Mateo, California: County Board of Education, 1968.

This management tool is divided into ten parts. Items 1 and 2 can be used as a reporting instrument for the purpose of identifying problems perceived to exist. Items 3-8 can be used as a survey instrument to obtain essential data for analysis of problem relationships. Items 9 and 10 can be used to integrate relevant information and to determine the significance of problems. A glossary of terms is included.

_____ **A System Approach for Solving Educational Problems.** Operation PEP, Burlingame, California. 1967.

This paper investigates various aspects of the systems approach for solving educational problems--(1) the systems concept; (2) the reliability of the assumptions on which the systems approach is based; (3) the limitations inherent in the systems approach; (4) the human element and its relationship with the systems approach; (5) the ways the systems approach has been used to effectively solve problems; (6) what is meant by a system. System analysis, system synthesis, and system approach, and (7) the benefits they systems approach offers to education. Also included is a model of a system approach as a logical tool for problem solving and a rationale and framework for implementing a systems approach to problem solving within the educational system. (ED020585).

Morgan, James M. **A Seminar and Training Program in Needs Assessment and Goal Development. Final Report.** National Institute of Education (DHEW), Washington, D.C. Researcher Training. August 1973.

This report describes two sets of training materials used in needs assessment and goal development programs. One set of materials trains local school/community groups to set goals for their schools. The second set trains evaluation specialists to assist the school community in the goal-setting process and emphasizes the technical skills related to data collection and use. The materials used by community groups consist of 10 units requiring a total of 16 hours or less to complete. The evaluation specialists' training materials are in 11 units requiring 20 hours total time. Both sets of materials are based on the goal development process which consists of problem identification by the school community, validation of these problems through school data and a community survey, translation of problems into goals, and an ordering of priorities. After a field test of the training materials, modifications were included with a training manual. Tape/slide presentations, simulations, and self-instructional exercises are employed in the programs. Three tables of data are presented in the report. (ED085373).

Mullen, David J.; and Mullen, Rosemary C. **A Principal's Handbook for Conducting a Needs Assessment Using the School Program Bonanza Game.** Athens, Georgia: Georgia Association of Elementary School Principals, GAE, and The University of Georgia Bureau of Field Serivces, Fall 1974.

Needs assessment as market analysis is the theme of this approach, i.e., you will not sell a program; no one is buying. This handbook describes in detail the administation and use of a game designed to help anyone who is conducting a needs assessment with the planning details, the implementation details, details of analysis and cost accounting, and details of getting parents and students involved in assessment. In simple terms, bothersome topics, such as public relations, work committees, data processing, and negotiating are treated through the game approach. References and appendices constituted by such needs assessment products as the needs assessment report are provided.

_____**Involving Parents, Student, and Statt in Determining a Needs Assessment of Eduational Priorities.** Paper, presented at National Association of Elementary School Principals Annual convention. Anaheim, California. April-May 1972.

In this paper, the author describes a game that is played by the school administration, faculty, staff, students, and parents in order to improve a school curriculum. The game gives all persons interested in the school an opportunity to "purchase" the kind of education they feel is needed. A player is given 20 play money bills. Each in the denomination of $100, and he spends the money according to the amount of educational time and effort he feels should be devoted to a particular area. Choices are made within the nine areas of the 3 R's; social studies; science; work world; the arts; health; P.E., and safety; making choices; relationship with others; and development of self. Participants are also asked to rank their current school program (for a specific grade level) in each of these nine areas. Responses are then tabulated by computer and when the results are in, the school can move forward in curriculum community. This publication contains a copy of the game, describes its development, and presents a case study of its implementation in an Atlanta school district. The community public relations and administration and costs of the game are also discussed. (ED093036).

National Study of School Evaluation. **Evaluation Guidelines for Multicultural-Multiracial Education.** Arlington, Virginia: National Study of School Evaluation, 1974.

The result of a NSSE project to produce instruments for measuring a critical area of American education, attitudes toward various cultures and program resources directed to cultural education are surveyed by the "guidelines." Designed as a resource rather than an instrument, per se, these guidelines enable one to determine how well school practices meet school, student, and community needs; how well practices conform the school objectives; and the extent to which practices fulfill school commitments. Nine instruments on school commitments and resources, a study opinionnaire, and a teacher opinionnaire are included.

_____**Student Opinion Inventory.** Arlington, Virginia: National Study of School Evaluation, 1974.

This package contains a survey for getting student opinion on the school's instructional program. A manual with instructions for administering, scoring, and interpreting data is provided along with reliability and validity data on the opinionnaire.

The New Hampshire High School. **The New Hampshire High School Education Model. Program Assessment System and Conceptual Framework for High Schools in New Hampshire.** New Hampshire, 1976.

A model of an "ideal" high school career education program with a system for assessing a high school's progress toward the ideal are presented in this document. An introduction describes briefly the source of the model, a project to demonstrate the most effective methods and techniques of career education at the secondary level in four high schools in New Hampshire. Part 1 is the system for assessment of high school career education efforts. It is made up of (1) six questionnaires, one on each career education goal, (2) goal prioritizing forms, (3) a community partnership checklist to rate school and community involvement; and (4) a summary profile form to graphically display career education development in a one-page format. Part 2 is a conceptual framework for high schools in New Hampshire, It includes 13 comprehensive goals (from which the 6 career education goals were selected) with a list of general conditions that should be met if each goal is to be achieved. Part 2 also includes a more complete discussion of many of the aspects to be assessed in Part 1 and provides the philosophy behind the assessment system. (ED137558).

Nichols, Jerry L. **Needs Assessment.** Iowa City, Iowa: Westinghouse Learning Corporation. Monograph Series No. 2

This monograph offers a brief description of an educational management process which begins with setting goals. Needs assessment as an ongoing process is presented along with factors which ultimately determine how a needs assessment might be carried out. Several techniques for determining and ranking goals are mentioned, along with some suggestions about altering a needs assessment.

Nivette, James D. **A Rationale and Methodology for Designing Logical Evaluations for School Programs.** Los Angeles: Los Angeles County Schools, 1969.

Educational evaluation and design are discussed, with emphasis on five essential steps in evaluation. Two tables which present alternative methods of simple evaluation procedure designs are included. The development of objectives is also discussed. Five evaluative designs are touched upon, and a list of standardized tests is included. Lastly, a statistical refresher and a glossary are included. (ED036830).

North Carolina Department of Education. **Handbook for Planning in Local School Systems.** Raleigh, North Carolina: North Carolina Department of Education, 1976.

This handbook, part of a complete package on management, consists of selected chapters from the North Carolina Comprehensive Educational Planning system and Training Program which was developed by the American Management Association. The chapters included are "Introduction to Planning," "Situation Analysis," "Beliefs, Resources, Policies," "Organization," "Problems, Strengths and Weaknesses," "Evaluation," "Specific Objectives," "Strategies," "Action Plans," "Bibliography." (ED132701).

Northwest Regional Educational Laboratory (For the Oregon State Department of Education). **Assessing Career Needs of Learners, Grade 8.** Portland, Oregon: Oregon State Department of Education, 1974.

Designed to be one assessment device, this material contains forms for student self-assessment on careers , school attitudes, and perceptions of knowledge and skills. It can be used as is or modified to suit a district's purposes. A survey evaluation form is included.

Norton, Robert E. **Staff Development Guidelines and Procedures for Comprehensive Career Education.** Ohio State University, Columbus, Ohio: Center for Vocational and Technical Education, 1975.

The guidelines are intended to assist the inservice program coordinator with a staff development program for comprehensive career education. The contents of the document cover the following career education topics: (1) overview; (2) the need for staff development; (3) roles and functions of the career education inservice coordinator; (4) initial considerations in developing a staff development program (goals, model, and management plan); (5) planning and implementing inservice education programs; (6) evaluating the staff development effort; (7) suggested in-service education programs and materials; and (8) sources of inservice educational assistance. Appended are several instruments including career education competency statements for teachers, counselors, and administrators; self-assessment and needs assessment materials; and a workshop planning kit. A glossary is also provided. (ED115907).

Ohio Department of Education. **Needs Assessment Guidelines.** Columbus, Ohio: Ohio Department of Education. 1974.

This publication has been developed to assist school district staff members in planning and conducting a needs assessment. Suggestions for implementation of the following procedural steps are included: 1) establish a needs assessment committee; 2) prepare statements of educational goals; 3) conduct a survey to determine perceived educational needs; 4) assign priorities to perceived educational needs; 5) set desired levels of student achievement on perceived needs of top priority; 6) ascertain actual status of student achievement; 7) compare actual status with desired levels of student achievement; and 8) assign priorities to educational needs. Appendices on activities, worksheets, and sampling are included.

Phi Delta Kappa. **Phi Delta Kappa's Educational Goals and Objectives A Model for Community and Professional Involvement.** Phi Delta Kappa, Bloomington, Indiana. 1972.

Designed to produce a set of goals and objectives for a school district, the Phi Delta Kappa (PDK) Model provides a complete kit with detailed, step-by-step instructions for organizing the program and what one does as a participant. A representative community committee is selected with membership consisting of citizens-at-large, school staff, and students. Four ways of selecting the committee are proposed, and the advantages and disadvantages of each method are listed. Goals are established from a prepared list of eighteen (18) general statements by either a committee or a group of small committees, and they are prioritized. The same people give their perceptions of how well the schools are doing currently in meeting those goals.

The information is given to professional staff members who then prepare objectives for their programs. Unlike the goal-setting procedures which are very specific, the instructions for the development of objectives are very general. The content and scope of the training, for example, is left open-ended as is the set of steps for converting curriculum into objectives. Those who desire specific instructions can complement this section with other materials. Still others may opt to prepare objectives directly from goals rather than preparing objectives from existing content. This approach, however, requires complementing PDK materials with other materials.

Another committee then matches the program objectives to the goals and determines whether or not anything else needs to be done to complete the goal and objective-setting process.

Phi Delta Kappa recommends that the next step consist of designing and conducting educational programs in concert with sound management techniques. Of course, those who believe the assessment should involve more than the perceptions of the committee can opt to complement these materials with a more formalized assessment plan prior to the designing and conducting of programs to address the goals and objectives.

National Study Committee on Evaluation. **Educational Evaluation and Decision Making.** Daniel L. Stufflebeam, Chairman. Itasca, Illinois: F.E. Peacock, Ind., 1971.

This book is organized to respond to objectives generated by considering five problems raised by evaluations and to present solutions to these problems. In Chapter 1 the five problems are explicated. Chapters 2 through 6 examine the problems in detail and offer some preliminary ideas for dealing with them. In the next chapter, a new model for evaluation is presented based on the problems and ideas already developed. Operational guidelines for implementing the new model are presented in Chapters 8 and 9. Chapter 10 analyzes the roles and training needs of evaluators and the final chapters address some unresolved issues and outlines the next steps in dealing with the problems and issues of evaluation.

______Teacher Education Project on Human Rights. **A Guide for Improving Public School Practices in Human Rights.** Bloomington, Indiana: Phi Delta Kappa, Inc., 1975.

This guide contains ideas, materials and suggested practices which public schools have found helpful in human relations and citizenship education. Covered are the human rights concept, responsibilities of administrators, methods of increasing teacher competency in the human rights field, material for study, curriculum ideas, and student behavior. Case studies illustrate points, and techniques of identifyng individual and short practices on each area of the PDK Human Rights creed are provided. Appendices include: a student rights inventory, an attitude scale for teachers and administrators, annotated and unannotated bibliographies, and a list of audiovisual materials.

Pickard, H. Stuart; and Schweiker,, Robert F. **Example of Initial Goal-Setting and Need Identification in Some New Hampshire School Disrict.** New Hampshire State Department of Education, Concord, New Hampshire, 1974.

Three school districts are examined in terms of what educational objectives are important and how well the schools are meeting these objectives. The first district incorporated goals listed by Phi Delta Kappa and questioned grade 5 parents, high school and junior high school students, and elementary, junior high school, and high school teachers as to perceived importance and performance standards for the 18 objectives. A table is presented showing areas of agreement among the groups, and there is a fairly high agreement within each group between the ranking of goals on importance and performance. The second school district used a similar method but did not divide parents, students, or teachers into subgroups. General agreement resulted on the relative importance of the goals. Although there was less agreement on the areas of educational needs, the third district did not use general goals, defined in a questionnaire, but elicited five educational priorities from parents in the district. (ED097346).

Plumb, Geraldine H., Ed.D. **Worldwide Education and Research Institute Model.** World Wide Education and Research Institute, Salt Lake City, Utah. 1972.

Designed by Jeff Eastmond and Geraldine Plumb to especially fit the needs of the Boise schools for a comprehensive needs assessment. The needs assessment addressed itself, not only to identifying the most critical learner needs, but also to providing a rational and systematic procedure for identifying and documenting them in such a way that they were not repeatedly challenged. The assessment was undertaken with the express purpose of providing ways to improve the educational program for the boys and girls of Boise, and to serve as a basis for long range planning. A Quality Assurance Committee was appointed by the Administration to monitor the study.

The critical needs were identified in conformance with criteria developed by the U.S.O.E. in 1970 and were categorized in terms of their priority (or criticality). Task force committees consisting of 15 persons, broadly representative of the community, were selected by the Quality Assurance Committee in the areas of Pre-School, Elementary, Junior High, High School, and Post-High School education to participate in a 3 day Concerns Analysis Conference. Major areas of concern identified were: 1) Public understanding of school matters and school problems, 2) Adequate vocational and occupational training, 3) need for children to develop positive self-images and, 4) need for children to do critical thinking and problem solving. Each validated need exhibited these characteristics: 1) The focus was on learner needs - not institutional needs, 2) The target group of learners were identified, 3) A criterion for judging the eventual satisfaction of need was developed, 4) The criticality of each need was developed, 5) A target date was set for the satisfaction of each need.

Program Development Center of Northern California. **Educational Goals and Objectives: A Model Program for Community and Professional Involvement.** Bloomington, Indiana: Phi Delta Kappa, Inc., 1974.

This is a complete training package which provides a series of strategies for use by a school district in developing community-ranked goals and teacher-developed objectives using the best current information and practice. Provision is made for community involvement, involvement of professional staff, and involvement of students in 1) ranking educational goals in order of importance; 2) assessing how well current educational programs are meeting these goals;

and 3) development of program level performance objectives to meet the priority-ranked goals. A model, rationale, and explicit directions for success of the program are included. Sample letters, goal sheets, and test items are also included, along with a Goal Ranking Game. (ED073530).

_____ **A Programmed Course for the Writing of Performance Objectives.** Bloomington, Indiana: Phi Delta Kappa, Inc., 1974.

This document is designed to serve as an independent workbook used in conjunction with a four-week series of independent and group activities. The booklet employs the principle of immediate reinforcement with small segments of learning. A question is given, and the appropriate answer is provided on the next page. Quite a few of the questions involve applications, requiring the learner to deal with real-life educational situations and crises.

Project QUIC. **Project QUIC Needs Assessment Survey.** Erie, Pennsylvania: 1971.

This survey consists of 303 statements covering student, teacher, and administrative responsibilities, as well as school curriculum. The respondent, one of the responsible agents or a community member, is asked to 1) determine if the statement is a "need," 2) state whether he/she feels the need is being met by the school, and 3) state, in his/her opinion, how well the school is meeting the need.

Sarthory, Joseph A. **Planning: Getting From Here to There. A Handbook for Local School Districts. Project Kansas 76.** Kansas State Department of Education, Topeka, Kansas. 1974.

There is currently a renewed emphasis on planning stemming largely from the accountability movement in education. The accountability factor suggests that current and future educational planning could perhaps differ from past planning. These differences could possibly manifest themselves in a wider inclusion of lay persons and groups in the development, implementation, and evaluation of educational plans and programs; more attention to planning in light of specified anticpated outputs or goals; plans for specified time periods grounded in a more comprehensive information base; and a professional assumption of responsibility for the effectiveness of such plans and programs. The objectives of this handbook are to promote comprehensive planning in local school districts. Point out the benefits of planning. Orient the reader to the planning process, and describe specific procedures that might be used in the various phases of the planning process. A list of references arranged selectively under topics pertinent to the document discussion is included. (ED089403).

_____ **Planning in Local School Districts. Project Kansas 76: Concept Paper.** Kansas State Department of Education, Topeka, Kansas. 1973.

In the wealth of documentation produced as a result of increasing pressures on local school districts to be accountable. Two terms -- "needs assessment" and "planning" -- are bandied about most frequently. These terms are often used interchangeably and even when this is not the case, they often represent varying shades of meaning. Such confusion in the literature makes it difficult to operationalize implicit processes and concepts at the practitioner level in the effort to improve educational practice. This paper attempts to clarify the nature

of planning and of needs assessment by providing a concrete illustration of their application in a local school district. Planning has to do with "determining where we want to be, assessing where we are, and developing a strategy for getting from here to there." Needs assessment is only one phase of the planning cycle, which consists of identifying and prioritizing goals and determining needs according to the discrepancy between goals and the degree to which they are being achieved. The planning cycle also includes the development of program and instructional objectives. Program development and implementation, program monitoring and evaluation, and feedback and recycling. (ED090642).

Schrodi, Tom et al. **Career Educational Pilot Project.** Orange County, California: Orange Unified School District. 1972.

Outcomes of a needs assessment for Consortium Pilot Project in career education for grades K-14 are summarized. Through questionnaires and surveys, teachers, students, parents and people from 150 service agencies in the communities contributed to the findings on career education. (ED074271).

Slusher, Tarry G.; Cutting, Guy D. **Systematic Problem Solving and Decision Making.** A Handbook for Teachers, Supervisors and Administrators. 1975.

This publication is intended to aid practicing educators in reviewing and utilizing current principles of problem-solving and decision-making. The booklet is organized in five short sections that briefly discuss different aspects of organizational problem-solving techniques to educational situations. These sections focus in turn on analysis of job priorities and objectives, decision--making as related to learning designs, problem analysis, potential problem analysis, and implementation of educational plans. (ED119355).

Systems Planning Corporation. **Goals Collection Project. Goal Setting Process Evaluation Report.** California State Department of Education. Sacramento, California, 1974.

This report presents an analysis and evaluation of some aspects of the goal-setting processes that were followed by California school districts in developing community-based goals, subgoals, and priorities. Data for the evaluation project were obtained from questionnaires distributed to school districts throughout the state. These questionnaires were then completed and-or verified by a five-member district reporting committee consisting of a community representative, a board member, an administrator, a teacher, and a student. Members of the committee generally included persons who had been involved in the original goal-setting process and who, therefore, had direct knowledge of that process. A total of 813 out of 831 districts (98 percent) that participated in the goals collection project returned completed questionnaires. (ED128956).

Tacoma Public Schools and the Tacoma Council of P.T.A. **Education for the 70's: A Survey of Community Opinion about the Tacoma Public Schools.** Tacoma, Washington: Tacoma Board of Education, May 1971.

This study was designed to produce a needs assessment to aid in preparing for the educational demands of the next decade. The purpose and the procedures

are briefly discussed, with most of the document being devoted to results of the study as they relate to nearly 50 concerns. Copies of the correspondence and questionnaires used in the study are provided.

Tempkin, Sanford. **Comprehensive Planning for School Disricts.** Paper presented at the American Educational Research Association, Minneapolis, Minnesota. March 1970.

This paper describes an approach to school district planning that examines overall objectives, ongoing operations, values, performance criteria, performance outcomes, and cost. The method utilizes seven general data files to assess school district activities in terms of educational and economic criteria. These files consist of: three structural sets (overall objectives, activity definitions, and activity coefficients) and two parameter sets (performance outcomes and costs). Key concepts are defined so that managers can process the data files to obtain desired evaluations. Assumptions implicit in the approach, as well as those implicit in the model's structure, are briefly discussed.

_____and Marvin, Michael D.; DeLorne, Hsuan; and Demby, Herbert. **Handbook of Comprehensive Planning in Schools**. Englewood Cliffs, New Jersey: Educational Technology Publications, January 1975.

This is an instructional module which employs self-designed measuring instruments to introduce the learner to comprehensive planning and to help school personnel assess both grade and building level strengths and weaknesses. The focus is on developing skills for assessing and improving existing curriculums. The module covers everything from the actual development of indicators to a detailed explanation of a data processing system for scoring and summarizing results. Also included is useful information on the development of a budget, reproduction of materials, and establishment of time lines for specific activities.

Timmins, William M. **Implementing Career Education in a Local Education Agency: A Guide.** Utah State Board of Education, Salt Lake City, Utah. 1974.

A planning guide for local school districts to assist them in improving their educational planning, the document focuses on the implementation of career education planning in a local education agency (LEA), but includes the total educational program. The steps outlined can be used by LEA's who do not have a career education emphasis. The implementation procedures are detailed for each of five major steps: (1) conduct needs assessment; (2) define and analyze need for career education; (3) consider alternatives and design career education programs; (4) implement career education program; and (5) evaluate and revise as necessary. The guide has drawn on related training materials produced for a multi-state effort. "Interstate Project: Planning in the SEA/LEA, the Next Step;" in addition, materials are included from a number of nonproject states. The guide is intentionally brief but is related to a source book which includes specific illustrations or examples to clarify the procedures outlined in this guide. (ED096550).

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_____**Implementing Career Education in a Local Education Agency: A Source Book.** Utah State Board of Education, Salt Lake City, Utah. 1974.

The source book was compiled to contain the materials supplemental to a planning guide designed to assist educational leaders at the district level with planning and implementing a program of career education. Illustrations and forms too voluminous to be contained in the guide are organized by steps recommended for planning: (1) conduct needs assessment; (2) define and analyze need for career education; (3) consider alternatives and design career education program; (4) implement career education program and (5) evaluate and revise as necessary. Among the materials which form the documents are descriptions of model programs, checklists, samples of correspondence, organizational charts, sample objectives, examples of curricular materials, and bibliographies. A job-placement manual, sample student work-experience record forms, information pertaining to child labor laws, and a plan activity diagram illustrate the implementation of a program of career placement. (ED096651).

Tucson Public Schools. **Educational Management: An Inservice Training Manual for Educational Administrators, Part 2: Need Assessment.** Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C. 1974.

This publication is one of five training manuals that present plans and materials for use in instructing school administrators in some of the concepts, principles, and techniques of education management. They were developed as part of the Educational Management Project for presentation at weekly inservice meetings for administrators in the Tucson Public Schools in 1973-74. Altogether, the five manuals contain outlines and instructional materials for 15 inservice training sessions; this particular booklet deals with sessions 7, 8, and 10, which focus on the topic of needs assessment. The set of materials for each session includes (1) an instructor's guide and a list of the performance objectives for that session, (2) participant handouts for use as reference material during and after the session, (3) participant worksheets for illustrating or practicing skills introduced during the session, and (4) a post-test for determining whether the participants met the session's objectives. The sessions may be conducted separately as topical workshops or together as a comprehensive one-semester inservice course. (ED120922).

_____**A Glossary of Terms Used by the Educational Management Project.** Tucson, Arizona: Tucson Public Schools, December 1971.

This is a referenced glossary of terms used during training in the Educational Management Project. (ED120917).

_____**An Inservice Training Manual for Educational Administrators.** Inservice Training Manual for the Educational Management Project. Tucson, Arizona: Tucson Public Schools, 1974.

This is a three-part training program on decisions and management, needs assessment, and goals and objectives. Designed to be used with the Educational Management Project, these materials are complete with instructor's guide, participant materials, and post-tests. Seventeeen two-and-one-half-hour sessions are devoted to the three topical areas.

_____**1973-1974 Project Description.** A Description of the Educational Management Project. Tucson, Arizona: Tucson Public Schools, 1974.

> This is a description of a project designed to assist personnel holding administrative positions in the Tucson school district develop systematic skills for decision making. Running from April 1971 to March 1974 decision skills were to be developed through activities to (1) increase awareness, (2) provide opportunities for adoption of decision outcomes. Evaluation design and project results are provided.

_____**Summary of Project Activities and Results 1971-1974.** A Summary of the Results of the Educational Management Project. Tucson, Arizona: Tucson Public Schools, June 1974.

> This document presents a year-by-year summary of progress for the Educational Management Project. Ratio achievement for project objective for trainees, attitudinal changes, and results of activities are provided.

Turlington, Ralph D. **Handbook for Educational Planning in Florida Schools.** Tallahassee, Florida: Florida Department of Education, 1974.

> Taking a focus on planning in the Florida school system, with specific references to the Florida Statutes and the State Board of Education Regulations, this handbook provides the user with planning tools for use in determining where a school system is, where it is going, and how it will get there. It contains basic introductory information, and covers eight specific areas in a step-by-step yet flexible approach to planning for education improvement.

U.S. Department of Health, Education, and Welfare. Office of Education. **Right to Read Assessment and Planning Handbook.** Washington, D.C.: Government Printing Office. 1974.

> The Right to Read Needs Assessment Package is designed to assist individual schools to evaluate their current reading program, personnel, and achievement in a relatively short period of time and as a prelude to planning a more effetive approach to reading instruction. Forms and examples of required steps are given. The information necessary is available in school records or could require only very short personal interviews. Data are recorded on forms provided, and suggestions for evaluation are made. A lengthy definition of terms is included in an appendix, as well as an article on measuring attitudes toward reading. (ED108136).

Wernick, Walter. **Teaching for Career Development in the Elementary School. A Life-Centered Approach.** Charles A. Jones Publishing Company, Worthington, Ohio, 1973.

> In eight chapters, and geared to practical concerns requiring the effort of an energetic teacher, this book explains what career development entails, why career education activities are necessary in the elementary school, and how plans can be developed within a variety of educational settings. Underlying its fundamental principle is that career education must be a refocusing of the work

of schools on people. Designing the learning activities, preparing for instructional planning, teaching career education concepts within a variety of subject areas, and implementing the program within existing facilities and resources are detailed. Many sample forms for teacher use, suggestions for staff development, and classroom activities geared to specific levels of development are provided. (ED078204).

Community College

Alameda County School Department. **Educational Needs Assessment: Theme and Variations. Abstracts of Models Presented.** Oakland, California, 53p., April 1976.

> This document presents abstracts describing 25 needs assessment projects appropriate for a variety of educational levels. The abstracts provide an overview of each model as well as information on the developer, source, cost, copyright, procedures for use, implementation needs, and special features. (ED143144).

Amesquita, Marshall; and Others. **Assessing Needs: Surveying. A Procedural Guide for Team Leaders. Research & Development Series No. 119-E. Career Planning Support System.** Ohio State University, Columbus Center for Vocational Education. Columbus, Ohio. 19p., 1977.

> Instruction for faculty/staff members on the needs assessment task force to lead others in preparing, administering, and collecting questionnaires is contained in this guide, one of twelve documents describing the Career Planning Support System (PSS) and its use. This procedural guide is separated into four major sections, each section providing procedural steps to be carried out by one team during surveying. Separate steps are described for student, parent, graduate, and faculty/staff questionnaire teams; some steps involve team-oriented tasks. (ED143871).

Board of Trustees, San Diego Community College District. **District-wide Needs Assessment Report.** San Diego Community College District, San Diego, California. September 1975.

> This is a report of a needs assessment designed to assist in the master plan for the San Diego Community College District. Completed in five phases by the Office of Planning and Evaluation, the assessment collected input from all the district's clientele as well as from college personnel. Methods, results, and instruments are included. (ED116749).

Bush, Andrew J.; and Others. **Career Guidance, Counseling, Placement, and Follow-Through Program for Rural Schools. Career Guidance Program Process. Career Development Needs Assessment. A Procedural Guide for Assessing Career Development Needs of Individuals and Groups of Individuals in a School and Community Setting**. Bureau of Occupational and Adult Education, Washington, D.C. 1977.

> Materials contained in the 16 Volumes that make up the Rural America Series suggest practices through which rural schools can meet local community needs and realize their potential for career program delivery. This procedural handbook, one of five program development process documents for the series,

provides information on why and how to conduct a career development needs assessment. One portion of the handbook deals with the ideas surrounding the execution of a needs assessment and offers concrete guidelines for conducting such an assessment for career guidance programs. Discussion and examples of procedural tools used in a needs assessment are provided. The document specifically addresses the issues of (1) identifying and involving important groups for input, (2) establishing and valuing goals, (3) gathering data, and (4) measuring and prioritizing discrepancies. The other portion of the handbook documents an application of the suggested procedures in a hypothetical situation. Appendices contain general forms for use in conducting a local career guidance needs assessment. (ED142754).

Coatney, Richard P.; and Others. **Assessing Needs: Tabulation. A Procedural Guide for Supervisors. Research & Development Series No. 119-F. Career Planning Support System.** Ohio State University, Columbus, Ohio. 62 p., 1977.

This guide, one of a set of twelve documents describing the Career Planning Support System (CPSS) and its use, provides instruction for faculty/staff members (on a needs assessment task force) to lead others in manually tabulating data collected on four questionnaires administered as one of the activities of CPSS. Procedural sections of this guide provide detailed instructions for accomplishing the following tasks: Transfer questionnaire responses to code sheets; add each column on each code sheet and record sums; transfer sums on each code sheet to summary sheets; total summary sheets; compute percentages and sums of rankings and transfer to nine tables; and record all fill-in statements and comments. It is noted that results of the tabulation are intended for use in setting goals for the school's career guidance program. (ED143872).

DeLeonibus, Nancy. "Taking A New Look at . . . Needs Assessment." National Association of Secondary School Principals, Reston, Virginia. 13 p.; **The Practitioner,** Volume 4, Number 2. December 1977.

Although administrators have applied the term "needs assessment" to many things, including desires and solutions, the term is becoming progressively more precisely defined. Assessing needs simply means identifying where we are now and where we want to be by a specific time. A new imperative for needs assessment arises from public demand that citizens be included in defining educational needs. Participants in the needs assessment process most often include administrators, teaching staff, students, and community members. This update on needs assessment contains summaries of assessment projects in eight secondary schools, including needs assessment for staff development, for career education, for opening a new school, and for determining cognitive needs. (ED146710).

Indiana State Department of Public Instruction. **1977 TIME (Teacher Initiated Materials Evaluation) Project Report. An Aid in the Selection of Special Education Materials.** Indianapolis Division of Special Education. 36p., 1978.

Contained in the report are listings of commercial instructional materials (and sources) reported to be effective by Indiana special education teachers. Presented in the front matter are a sample evaluation form and a brief description of the TIME (Teacher Initiated Materials Evaluation) Project. The contents are separated into sections by exceptionality and, when appropriate, by level or curriculum area. The number of times each material was recommended is noted. Materials are listed for the following categories: preschool handicapped; educable mentally retarded (primary, intermediate, junior high, senior high); trainable mentally retarded (primary, intermediate, junior, and senior high); severely and profoundly retarded; speech, hearing, and language learning disabled; emotionally disturbed; deaf (pre-school, primary, intermediate, junior, and senior high); blind; multiply handicapped; and physically handicapped. (ED143190).

New York State State Education Department. **Needs Assessment: A Step in Program Planning. Career Guidance Programs.** Bureau of Guidance, Albany, New York. 59p., 1976.

This publication is designed for counselors, teachers, and parents who want to improve their local guidance program and make it more responsive to the needs of those it serves. Broad and intensive to the needs of those it serves. Broad and intensive school-community involvement, including parents, pupils, school personnel, school board members, and concerned citizens, is a primary feature. Step-by-step planning procedures are listed, based on the school's purpose and educational goals. Chapter One offers an overview for the casual reader. Chapter Two outlines the range of commitment and depth of involvement necessary for implementation of the process. Chapter Three contains specific procedures as well as samples and simulations of activities and materials to be used in school settings.

San Diego Community College District, Office of Planning and Evaluation Services. **San Diego Community College District-Wide Needs Assessment Model.** San Diego Community College District, San Diego, California.

Designed as a scientific management tool to provide data upon which educational program planning and management decisions can be made at the community college level. The model provides a basis for determining priorities and provides for public accountability.

The comprehensive, five-phased Needs Assessment model brings together the collective input from every partner in the educational process -- the community, community leaders, the students (both former and current), and the community college staff (faculty, administration, and support personnel). By the use of comparative analysis and various reconciliation strategies, the user of this model is better able to develop programs, facilities, and services which are consistent with the needs of those it serves.

Tucker, Katie Duncan. **Needs Assessment Project for the Central Florida Community Colleges Consortium.** Tallahassee, Florida. 1972.

This project has the following purposes: (1) To rank the educational needs in their order of importance, (2) To develop alternative plans to meet those needs, (3) To determine budget allocation guidelines according to need priorities, (4) To monitor the benefit or value of a need as compared to its cost, i.e. to discover if fulfilling a need justifies its cost, (5) To develop a continuing, dynamic system to evaluate the college's effectiveness in meeting community needs.

County

Alameda County School Department. **Alameda County Needs Assessment Model.** Hayward, California: Alameda County School Department. 1974.

> The Alameda County Needs Assessment Model is still in the experimental stage. This package includes materials on Phase 1 of its development and contains a user's manual, a package of statistical summary and data forms, survey packages for four populations; teacher, pupil, parent, and instructional support staff. The user's manual includes an introduction to and an overview of the model, the needs assessment process in comprehensive planning, and directions for using the model. Forms for ordering the model's components are included.

Bingham County Developmental Career Education. **Bingham County Developmental Career Education Emphasizing Career Awareness, Orientation, Exploration, and Preparation for the World of Work.** Southeastern Idaho. July 1976.

> Covering the period of June 1973 to June 1976, this final report describes objectives, activities, results, and accomplishments to date of a career education project serving nearly 10,000 K-12 students in five school districts in Southeastern Idaho. Accomplishments listed for continued implementation in the third operational year include these: An inservice teacher workshop; development and dissemination of curriculum units; a follow-up study of high school graduates; career placement services; two mobile resource laboratories -- a model office simulation (BOP, Inc.) and a career information center (PACE); and skill training programs. The report of the third party evaluation, which involved student testing, questionnaires, and review of records and materials, is appended. Findings are reported for each of the seven project objectives and measure the extent to which objectives were attained. Other appendixes include role descriptions for project personnel; units, activities, and materials for career education K-12; summary report of third party evaluator; guide for implementing career education; and program description and materials for the PACE Center and for BOP, Inc. (ED136024).

Brevard County School Board. **Attitudes Toward the Brevard County Public Schools.** Titusville, Florida. Brevard County School Board, 1974.

> The purpose of this series of surveys is to measure and record the attitudes toward schools of registered voters, students, and employees of the Brevard County School District. Benchmarks have been set to enable change in attitude to be measured in the years ahead. The material contains a discussion of the research procedure, the design of the sample, sampling tolerances, and conclusions. Also included are copies of each of the surveys.

Bucks County Public Schools. **Project Description: Quality Education Program Study.** Booklet A. Bucks County Public Schools, Doylestown, Pennsylvania, 1971.

> This is the first of twelve documents produced by the Bucks County Public Schools. It describes the background of a comprehensive needs assessment

project. The document also includes an overview and a detailed description of procedures used to collect, handle, and analyze data. Sample forms for teachers and students as well as suggestions for conducting teacher, student, and parent interviews are appended. (ED063355).

______**General Need Assessments: Quality Education Program Study.** Booklet B.

This document discusses the purposes and uses of needs assessment instruments. (ED063357).

______**General and Individual Needs Assessment Instrument Goal One: Self-Understanding.**

This and each of the following nine documents deals with instrumentation for the goal addressed in the document title. (ED063361).

______**Needs Assessment Instruments Goal Two: Understanding Others.** (ED063363).

______**Needs Assessment Instruments Goal Three: Basic Skills.** (ED063369).

______**Needs Assessment Instruments Goal Four: Interest in School and Learning.** (ED063367).

______**Needs Assessment Instruments Goal Five: Good Citizenship.** (ED063369).

______**Needs Assessment Instruments Goal Six: Good Health Habits.** (ED063371).

______**Creativity: Quality Education Program Study Goal Seven, Creativity.** (ED063373).

______**Vocational Development: Quality Education Program Study Goal Eight, Vocational Development.** (ED063375).

______**Understanding Human Accomplishment. Quality Education Program Study Goal Nine, Understanding Human Accomplishments.** (ED063377).

______**Preparation for a Changing World: Quality Education Program Study Goal Ten, Preparation for a Changing World.** (ED063379).

Clinch-Powell Educational Cooperative. **Perceptions of Educational Needs in Campbell, Claiborne, Hancock, and Union Counties. Final Report.** Harrogate, Tennessee: Clinch-Powell Educational Cooperative, 1972.

This report includes the results of a survey in which an attempt was made to determine the public's perception of educational needs. The group surveyed was composed of certified school employees, non-certified school employees, other adults, elected officials, and students. Analysis of the data revealed that needs were identified differently by different groups and that there was no general consensus. Some disagreement was shown between non-certified school employees and certified school personnel, but students and certified school personnel were in almost complete disagreement on the priority of needs in their counties. (ED068220).

Educational Properties Ind. **The Comprehensive Career Education System: System Administrators Component K-12.** Irvine, California. 1977.

Using the example of a Career Education Model developed by the Orange County, California Consortium, the document provides guidelines for setting up career education programs in local educational agencies. Component levels, a definition of career education, and Consortium program background are discussed. Subsequent chapters include: Program Planning, discussing system designs for a district effort and for an individual school site; The Evaluation Design, describing the Consortium's adaptable design in terms of process and product evaluation; Needs Assessment, supplying a breakdown of compilation methods for each form used by the Consortium, and 11 inventory and survey examples; Staff Utilization, providing 11 sample forms helpful in facilitating staff organization; and Project Activity Management and Evaluation System, including an overview of the project, and discussing K-12 and guidance center staff; Career Education Development, discussing a model curriculum development matrix, format design, class operations, articulation, and implementation; Utilization of a Learning Unit, discussing format; and Career Education Curriculum Proposal, presenting guidelines, instructions, and sample proposals. The Consortium has utilized the California State Department of Human Resources and Development as one of its main resources for course development content. (ED114526).

Kinsaul, John M.; Dorne, William; and Jensen, Mary. **A Summary of Findings an Recommendations for Curriculum Development Needs Assessment of the Educable Mentally Retarded.** Okeechobee, Florida: By the Author, June 1973.

Presented were findings and recommendations of a curriculum needs assessment study on programs, job opportunities, and services for 312 educable mentally retarded students (EMR) in three Florida counties (Glades, Martin, and Okeechobee). Use of a systems model for planning, implementing, and evaluating the study was explained. Of the findings given, some showed that more students in EMR classes were Negro than White, and boys than girls; that students' other handicaps were in areas of speech, language, and emotional disturbance; that most teachers preferred the self contained classroom and few had expectations for students' future employment; and that job opportunities existed for students with specific characteristics in agricultural, domestic, and environmental areas. Also, some of the findings given showed that few differences existed between the curriculums of regular and EMR classes; that teachers used audiovisual aids, library materials, and physical education equipment but needed materials for daily living skills; that psychological services differed in the counties but all stressed placement according to IQ: that more supportive services weere available in two large counties, and two counties had no vocational rehabilitation services; and that agency support was available from sources as youth centers and non-profit groups. Recommended were such improvements as development of social and economic curriculums for students at source rooms, inservice teacher training, work study programs, child placement procedures based on the individual, and a program involving parents. (Appendices containing data on the seven assessment components comprise more than half of the document.) (ED082430).

Marinelli, Joseph J. **A Summary of Findings and Recommendations for Curriculum Development Needs Assessment of the Educable Mentally Retarded in Baker, Bradford and Union Counties.** Florida State Department of Education. Tallahassee Education for Exceptional Children Section. Tallahassee, Florida. July 1972.

A project to assess needs of educable mentally retarded (EMR) children and adults in three Florida counties reports findings and recommendations. EMR population findings show that many of the 224 EMR students have language deficiencies, and that most cluster at 11 and 15 years of age; recommended are early intervention, language programs, and revised secondary curriculums. Data show that the average EMR teacher is married, is confident about providing good relationships, is not confident about curriculum planning and implementing, and is perceived by other teachers as a baby sitter; recommended is more inservice teacher training in classroom techniques, and more teacher action in professional organizations. Job opportunities exist for EMR persons who work independently and remember procedures: recommended are teacher contact with employers, and more vocational training. Few differences are found between EMR and regular classes, and thus few problems preclude integration; recommended are more academic courses for EMR students, and secondary curriculum improvement. Classroom environment assessment shows traditional audiovisual material use, and physical arrangement; minuscule physical development material use, and some language program use; and recommended is the curriculum specialist's attention. Administrative support findings show EMR teachers sharing all teachers' roles and budgets; while the support services of schools and local agencies appear adequate. An index comprising half the document gives data for all assessment phases and includes a summary list of job possibilities. (ED070880).

_____ **A Systems Procedure Manual for Conducting a Needs Assessment.** Florida State Department of Education, Tallahassee Education for Exceptional Children Section. Tallahassee, Florida. July 1972.

Reported in the manual are systems procedures to assess needs of educable mentally retarded (EMR) children and adults in three Florida counties in terms of EMR student and teacher assessment, EMR classroom programs, job opportunities, and services available, as a first step in developing a total curriculum. Described are the project's 3 year developmental plan, funding, staffing, and curriculum objectives (such as incorporation of physical skills, and social and vocational competencies from primary through high school levels). Explained are terminology, a flow chart (which shows event, activity number and description, staff member responsibility, and inception and completion dates), and the flow network. Discussed are activities for identifying the EMR population (included are such forms as a behavioral characteristics checklist, and social competencies scales for children and adults); for identifying and appraising teachers (included are a self appraisal form with 20 questions, and forms for observation of teachers); for obtaining information from employers on job requirements; for assessing the present curriculum (such as time EMR pupils spend in regular or EMR classes), for evaluating classroom environment (a checklist of equipment, instructional materials, and questions is included). Also presented are activities for assessing administrative support, school supportive services, and local agencies' support (form included). Briefly described are methods of summarizing information, of communicating with the public, and of evaluating the assessment operation. (ED079879).

Price, Nelson C. **Establishing Goals and Goal Priorities. Revised.** San Mateo County Superintendent of Schools, Redwood City, California. 1973.

This publication sets forth information about, and provides some concepts and techniques essential to the initiation of an educational plan. The goals describe the intended product or the direction to be taken. The study of needs and priorities provides guidance about where to start, or where to place major emphasis on resources. Indicators describe the kinds of clues or evidence needed to show progress. By following the procedures outlined in this document, school districts should be able to develop and use statements of philosophy and goals to provide real direction to local educational programs, and in the process, involve a broad spectrum of people from the school community. Subjects covered include where goals fit into the overall planning process, what constitutes statements of district educational goals, what to ask for and where to get more examples of goals. The procedure for developing statements of district goals and philosophy, how goals are used to determine student needs, how to determine goal priorities, and what constitutes goal indicators. (ED093060).

Superintendent of Schools, Brevard County School Board. **A Survey for the Brevard County School Districts.** Titusville, Florida. 1974.

This survey instrument, developed by the Brevard County School Board, Florida, is an adaptation of the Phi Delta Kappa instrument. It consists of two parts: (1) a ranking of goals and (2) a rating of the level of performance of current school goals. Directions and questions eliciting biographical data are included.

Wisconsin Department of Public Instruction, **Educational Needs Assessment in Cooperative Educational Service Agency 6 Local School Districts**. Report, Project Next Step. Madison, Wisconsin Department of Public Instruction.

Part A of this report provides an overview of economic and population characteristics of the counties which comprise C.E.S.A. #6, a regional organization unit operating in Wisconsin. Part B contains the individual needs assessment reports which document the processes and findings in each particular county (Local Education Agency). Part C contains a chronological record of the activities which were required to initiate planning among all agencies -- the Department of Instruction, C.E.S.A., and the L.E.A.

Witkin, Belle Ruth. **Alameda County Needs Assessment Model (ACNAM) Second Experimental Ediion.** Alameda County Education Center, Hayward, California. 1975.

The ACNAM was designed to assist schools in California to assess needs for planning programs funded under a consolidated application for ESEA Title I and other Federal and State funds. However, the model can be used for program planning in any elementary school (K-6).

State

Alabama State Department of Education. **Design for Developing a Program of School Improvement.** Montgomery, Alabama: Alabama State Department of Education. August 1973.

> During the academic year 1972-73, two school systems in Alabama were used to develop model assessments that could be used by other local agencies to establish priorities for Federal programs. The design of the study is discussed along with implications for effectiveness. Also included is a detailed examination of how the study was conducted as well as an evaluation of the study. The resulting needs and the program for improvement are discussed. Appendices contain an educational goals questionnaire, a form for tabulating data, an instructional needs questionaire, school dropout summary data forms, and a questionnaire for conducting a follow-up of graduates.

Arkansas Department of Education. **Educational Needs Assessment.** Arkansas Department of Education. Little Rock, Arkansas. 1973.

> This report reflects the culmination of a two-year endeavor to establish critical educational needs of Arkansas students. Schools were classified by size and geographic location. Pre-tests and post-tests given a year apart were used in three learning domains -- cognitive, affective, and psychomotor. Each of the three learning domains, and results of the data analyses are discussed. Comparisons of scores are included along with observations and conclusions. Guidelines for administration, an attitude inventory and answer sheet, and a physical fitness test and data sheet are provided.

Barlow, Bruce M. and Timiraos, Carmen R. **Colorado Adult Needs Assessment Study.** Colorado Department of Education, Denver, Colorado.

> Designed to conduct large scale needs assessment of adults, business, and industry, and agencies that serve adults. It gathers data on participants' knowledge, perceptions and expectations of existing programs. It includes an interviewer training design.

Bowkett, Norman S. **Directions 70's: An Assessment of Educational Needs in Alaska.** Bethesda, Maryland. Office of Planning and Research, Alaska State Department of Education, 1970.

> This is an ESEA Title III report which presents educational goals and objectives for the public education system of Alaska. The main thrust of the report is toward the establishment of goals which contribute to the most favorable development of the individual, his needs, competencies, skills, values, and potential contributions. For each goal, specific objectives are supported by a statement of need for the objectives and a summary of present and planned actions to meet the objectives. A summary of state department activities in the areas of educational planning and research is also included. (ED054888).

Bryant, Antusa S., and Others. **ABE Staff Development Needs Assessment in Minnesota: A Report.** Mankato State College, Minnesota. July 1973.

The needs assessment of Adult Basic Education (ABE) in Minnesota touched on both the need for classes for ABE students and the need for training for ABE staff. Chapter 1 provides a summary of recommendations; Chapter 2 gives a statement of the problem; and Chapter 3 discusses the design, implementation and results of the needs assessment. The remaining 40 pages of the document consist of appendixes, including letters sent with questionnaires, copies of questionnaires themselves, and detailed discussion of questionnaire responses. (ED097458).

Burson, William W. **Quality Assessment Teacher Questionnaire.** Pennsylvania State Department of Education. Harrisburg, Pennsylvania, 1972. (Bethesda, Md.: ERIC Document Reproduction Service).

This questionnaire is used in the Educational Quality Assessment Program for the state of Pennsylvania. It includes checklists for the following kinds of information concerning teachers: locale, stability, college, mother's education, father's occupation, attitudes relating to professional recognition, career interests, salary, length of service, and age. It also includes rating scales for factors related to school climate, personnel influences and decision-making, and classroom teaching practices. (ED069808).

California State Department of Education. **California School Boards Association.** Office of Information Dissemination, Sacramento, California. 1975.

The purpose of the survey was to review information regarding the conditions within the total community of California's public school system in order to more correctly allocate the states fiscal resources. The survey attempts to develop a workable picture of what schools look like both now as well as in the near future. In this respect, the survey had a three pronged focus: 1) Assessment of the public schools in California; 2) Major problems confronting California public schools; 3) Changing the educational system.

The information surfaced by the survey was enough to help the California State Department of Education in developing its annual budget. The analysis of the data by the department isolated critical educational needs which were translated into priorities and concerns. Priorities were the basis for budgetary considerations whereas the concerns were more readily treated through review of existing management practices.

______**Career Education: A Position Paper on Career Development and Preparation in California.** Career Education Task Force, Sacramento, California. 1974.

The publication was prepared as a statement on the position of the California Department of Education pertaining to the concept of career education. Career education is conceptualized as the bridge to relevancy between education and work; it moves the school out of the ivory tower into interaction with the total community. The position paper is further designed to provide the reader with an overview of career education in the State. The need for career education is identified and a philosophy established to accommodate that need. A great diversity exists in California schools; therefore, the proposed model for career education contained in the publication, with associated goals, components, and infusion processes, provides general guidelines for district and school-level activities. Some other aspects of career education considered in the paper are: career education for adults, career education resources, process and product evaluation, staff development and management, and concern for racial and ethnic minorities. (ED117420).

_____**Focus on Promising Practices of Needs Assessment.** Bureau of Program Planning and Development, Sacramento, California. 1974.

The California State Department of Education and 33 California school districts contributed articles to this compendium focusing on the assessment of educational needs. It is noted that a crucial stage in the development of effective programs for pupils as well as for requesting state and federal funds. Is the assessment of educational needs. A seven step process of needs assessment is advocated by the California State Department of Education including: (1) identification of the disadvantaged pupils; (2) collection of all relevant data concerning these pupils. Their family background and their communities; (3) comprehensive diagnosis of pupil deficiencies; (4) analysis and classification of the most common needs; (5) deciding on action priorities; (6) identification of resources available within the school and community for supporting the planned program and (7) locating the program in time and space as well as establishing its legal limits. Two articles are contributed by school districts administering cooperative programs: "Needs-Assessment Procedures for a Cooperative Program" (Eureka City Elementary and High School Districts and Cutten Elementary School District) and "Techniques for a Needs Analysis in a Cooperative Project" (Sylvan Union, Stanislaus Union, and Salida Union Elementary School Districts). (ED107745).

Campbell, Paul B. and Beers, Joan S. **Definition and Measurement in the Affective Domain: Appreciation of Human Accomplishments.** King of Prussia, Pennsylvania: Research Information Services for Education. 1971. (Bethesda, Maryland: ERIC Document Reproduction Service).

The first three levels of the taxonomy in the affective domain guided the development of two inventories (the Pennsylvania Inventory and Cultural Appreciation (PICA) for the 11th grade, (the Things People Do (TPD) for 5th grade) to measure appreciation of human accomplishments in seven areas: politics, sciences, sports, literature, visual arts, music, and theatre. Alpha coefficient for the PICA is .92, and for TPD .79. Photographs are used in the TPD. With a sample of 3,000 in each grade level, analyses of the instruments included comparison of means, analysis or correlations, factor analysis, and analysis of cumulative structure. The hypothesized hierarchical structure is supported by the TPD data, but not by the PICA data. Many inferences and implications are discussed. (ED050173).

_____**Needs Assessment in Educational Planning.** May 1974.

Uses an expanded definition of assessment. Drawing attention to those elements of a planning system that are closely interactive with assessment and which could either immediately precede or follow the data collection. (EJ099389).

_____**The Pennsylvania Questionnaire.** Pennsylvania State Department of Education. Harrisburg, Pennsylvania. December 1970.

In this document elementary and secondary attitudinal items intended to measure six out of ten goals of quality education of the state are combined. Item groups include understanding others, interest in learning, citizenship, creativity, appreciation of human accomplishments, and preparing for the demands of a changing world. Each group of items in the questionnaire is accompanied by directions and is designated by: 1) a goal number; 2) "Elementary", "Secondary", or both; and 3) a brief definition of the subject area. Elementary items are designed for 5th graders; secondary, for 11th graders. A variety of supporting data is available on request, including reliabilities, validity, item and factor analysis, and percentile distributors. (ED051267).

Center for Social Research and Development. **Analysis and Synthesis of Needs Assessment Research in the Field of Human Services.** University of Denver. Denver, Colorado. 1974.

This study represents a good summary of the state of the art in needs assessments both public and private. While methodology is not dealt with at length, the evaluation of several community needs assessment projects conducted under various auspices can provide a good insight into the problems of carrying out such a project.

Consulting Services Corporation. **An Assessment of the Educational Needs of Indian Students in the State of Arizona.** Seattle, Washington: Consulting Services Corporation. 1969.

This study offers general and comprehensive information on American Indian education in Arizona as it pertains to ESEA Title III. Using interview sessions including eight to twelve participatns who were encouraged to comment on all aspects of Indian educational needs, the project resulted in 19 recommendations for the administration of Title III at the state level. The study lists and discusses the findings and underlying needs discovered from the interviews. The six basic underlying needs involved improvement of: educator-learner relationships, student self-image, student involvement, educational administration, curriculum structure, and community involvement. (ED066275).

Cooperative Accountability Project. **Characteristics of and Proposed Models for State Accountability Legislation.** Denver, Colorado: Cooperative Accountability Project, 1974. (Reprint date)

This report discusses the laws and acts relative to educational accountability in many states. Part 1 of the report highlights what is required in the legislative language of the acts by presenting their specific characteristics in a series of tables. Discussion of these characteristics, with comparisons and comments on omissions and trends, are offered. Part II consists of "model acts" that illustrate a format for four accountability and assessment laws, along with suggestions for their implementation by means of administrative codes. (ED078514).

_____**Costs of Educational Accountability.** Denver, Colorado: Cooperative Accountability Project, 1974.

This document is a report of an exploratory study of the cost-pricing educational accountability within the Maryland schools. The exploratory study was undertaken to determine the state of the art in cost-pricing accountability components at the state and local educational levels and to make recommendations about necessary future research in this field. In the study, four educational accountability components were identified from the Maryland Educational Accountability Act: goal development and implementation; objective development and implementation; surveying status of student achievement; and program development. Using these components, a survey instrument was developed, data collected, and analyses made. Conclusions and recommendations are reported.

_____Wormer, Frank S. **Developing a Large Scale Assessment Program.** Denver, Colorado: Cooperative Accountability Project, 1973.

This monograph employs examples and an outline format to give an introduction to needs assessment. A detailed exploration of the assumptions underlying needs assessment as well as a definition are provided. A general overview of needs assessment is included, followed by a detailed examination of the planning tasks involved in assessment. Development tasks and evaluation of the assessment are briefly mentioned. Examples from Minnesota, Texas, Pennsylvania, Florida, and Michigan are included, and a bibliography is provided. (ED084641).

_____**Indicators and Statewide Assessment.** Denver, Colorado: Cooperative Accountability Project, March 1974.

This report is designed to share the Oregon's Department of Education experiences with the conceptual and the actual use of indicators in assessing progress toward state-level goals and objectives. Chapter 1 outlines the history of Oregon's assessment and briefly discusses the concept of indicators as it is used in the report. Chapter 2 presents Oregon's definitions of indicators and suggests criteria to be used in selecting indicators. Chapter 3 discusses two ways in which Oregon will use indicators in statewide assessment, and Chapter 4 outlines the procedures used by Oregon to identify and inventory sources of indicators. Chapter 5 reports on the uses being made of indicators by other state departments of education and mentions some of the noneducational settings where the concept has been used. Appendices include a list of indicators and selected references. (ED091869).

_____**Roles of Participants in Educational Accountability.** Denver, Colorado: Cooperative Accountability Project, 1974.

This monograph is an analysis of the participatns involved in educational accountability, their roles and their responsibilities. An opening overivew of the accountability movement, coupled with the purpose behind accountability, gives the basis for the analysis of accountability in relation to the participants involved in it. Following the description of a model accountability program the focus rests on the participants. Participants, such as principals, teachers, consultants, etc., are first identified, and then their individual roles in all phases of the accountability program are assessed. Conflicts are also pointed out, along with the implications of a multi-level, participant-oriented accountability program. A bibliography is included.

_____ **Who's Afraid of Educational Accountability?** Denver, Colorado: Cooperative Accountability Project, 1975.

This representative review of education accountability material incorporates a sampling of all the literature published to date. A summary of educational accountability definitions has been coupled with a recap of the various outside pressures which have caused accountability to gain momentum. Various applications of accountability are interpreted in order to aid readers in gaining a clearer understanding of the purpose of educational accountability as well as its many techniques. The many attempted ways of evaluating educational performance are also discussed. An extensive bibliography is included.

Cornell, Terry D. **Needs Assessment.** Tucson, Arizona: Educational Innovators Press, 1973.

This booklet describes a systematic approach to the assessment of learner and educational needs at the classroom, school, project, or state level.

Crim, Roger D.; Bownes, Malcolm. **Needs Assessment for Staff Development Report.** Paper presented at the Annual Meeting of the Northeastern Educational Research Association. Ellenville, New York. October 1975.

To provide an adequate base of knowledge to use in developing a state-mandated master plan for New Hampshire Supervisory Union No. 30, subjective and objective data were obtained from the citizens, teachers, and students of the union. The following opinion surveys and needs assessments were conducted: community, teacher, and student opinion survey; teacher needs assessment; and student needs assessment. The opinionnaire was used to find out if the surveyed groups felt the Union's schools were successful in teaching 12 educational goals and if teaching toward the goals was a responsibility of the local public schools, the home, or both. The teacher needs assessment was used to determine the priorities of teachers' professional needs in respect to 18 innovations, techniques, and needs. Only objective test of diagnostic data were used in the student needs survey that covered academic and physical and mental health areas. The instruments and results are presented in appendixes. (ED128936).

Cryer, Rodger E., et al. **Shared Decision-Making . . . A Training Module.** Washington D.C.: The National Cluster Coordination Center, United States Office of Education, 1973.

This module consists of sections dealing with eight areas of concern in decision making. The first, strengths and limitations of shared decision making, is dealt with through the use of a paper and an open-ended questionnaire. Personality and institutional values are the focus of the second concern. Questionnaires and readings are included in its treatment. The third concern deals with models using examples and three analysis exercises. A workshop format is used to explore the appropriateness of decision-making, the fourth concern. The same treatment is given the fifth, group problem-solving and decision-making processes. Communication systems are treated with the aid of readings, accountability is examined using a workshop format, and the final concern -- organizational output -- is treated using written material and group discussions.

Educational Testing Service, Center for Statewide Educational Assessment. **Aspects of Educational Assessment.** Princeton, New Jersey: Educational Testing Service, 1975.

In these papers, the authors come to grips with some of the most difficult problems of measurement. In one paper, Joan Knapp explores questions of defining and measuring self concept; in another, she examines some problem of measuring attitudes toward school. In both papers, the author comments extensively about the use and value of a number of instruments. Richard Jaeger's "primer" on sampling is a valuable resource presented with humor and imagination. Paul Campbell outlines testing strategies that take into account the relationship between learning conditions and achievement. John Femer suggests ways to determine what should be measured, whether newly developed or existing instruments should be used, and what types of reports are needed. In the final paper of this volume, Nancy Bruno, Paul Campbell, and William Schabacker present a comprehensive guide for state assessment personnel. (ED131094).

_____**Institutional Goals Inventory.** Princeton, New Jersey: Educational Testing Service.

This is a packet which includes the Institutional Goals Inventory form and instructions for its use; pamphlets by Richard E. Peterson on institutional goal consciousness, college goals and effectiveness, and the use of goals to face the current crisis of purpose in institutions of higher education; an article by Patricia Cross on goals for community colleges; and a report of institutions using the goals inventory. The inventory itself is designed to help colleges and universities define goals, set priorities and give direction to planning. A summary of goals for higher education in California is included.

_____**State Educational Assessment Programs.** Revision. Princeton, N.J.: Educational Testing Service, 1973.

This publication has two major parts. A paper by Joan Beers, Pennsylvania Department of Education, and Paul Campbell, ETS, describes, analyzes, and interprets some of the significant portions of data collected in a second survey of the status of state educational assessment programs. The second part is a report of the assessment activities of each of the 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. Each report provides a standard description of the state's activities, the name, address, and telephone number of each individual interviewed and, where appropriate, a list of publications pertaining to the state's program. A copy of the interview guide is provided. (ED080582).

______**Student Reactions to College.** Princetown, New Jersey: Educational Testing Service, 1974.

This is a packet including self-administered questionnaire for eliciting student reactions to experiences or situations in community or junior colleges. A user's manual, instructions for administering the SRC, and information on a scoring service are included. (ED092195).

Florida Department of Education. **Accountability: Related Bibliographies.** Tallahassee, Florida: Florida Department of Education, September 1975.

Nine unannotated bibliographies are in this collection. Articles, dissertations, books, government publications, and unpublished material are included. The nine areas covered are: Criterion-referenced Tests, Educational Accountability, Evaluation Criteria, Evaluation Methods, Evaluation Techniques, Functional Literacy/Illiteracy, Performance Criteria, Performance Specifications, and Program Efectiveness. (ED116339).

______**An Assessment of Educational Needs for Learners in Florida.** Tallahassee, Florida. 1970.

This report, part of the Florida Department of Education Educational Needs Assessment Study, identifies eight critical learner needs and the target population most associated with each need. A first section is a selected statistical abstract that describes the Florida population, with a wide variety of information gathered from public and private agencies being provided. The next section sets forth the statistical results of an assessment made of seven perennial objectives -- cardinal principles enumerated by the NEA -- based on strategies developed by the ENAS task force. Following this section is tabulted data from a survey analysis of educational practices in all 67 Florida school districts. The data reveal that Florida education appears to be most relevant for whites, is lodged in the larger community's values and beliefs, and that nonconventional outcomes of education (delinquency, divorce, illegitimacy) have their origins in the community rather than in the schools. The eight critical learner needs are identified in a final section. (ED074631).

Garms, Walter I., and Smith, Mark C. **Development of a Measure of Educational Needs and Its Use in a State School Support Formula: Report on Study of the New York State School Support Formula**. Bethesda, Maryland: ERIC Document Reproduction Service, 92 pages, 1969.

The basic premise of this study is that public schools should operate positively to encourage quality of opportunity, since schools are able to affect achievement levels and rates of learning. The study, sponsored by the New York State Educational Conference Board, concerns the development of a measure of educational need and its use in a state school support formula in New York. Research was based on a sample of 45 school districts and suggests four variables: 1) the ratio of Negro and Puerto Rican students in the school, 2) the percentage of children from broken homes, 3) the average number of different schools the children have attended in the past three years, and 4) the average number of years of schooling the parents have completed. (ED038739).

Gavigan, Patrick and Hesemann, John. **Indiana Educational Needs Assessment Project: An Introduction to the Analysis of Correlates of Reading Skills in Indiana Public Schools.** Indiana State Department of Public Instruction and Indianapolps Division of Innovative and Exemplary Education. Indiana, November, 1975.

> This report is part of an overview of the aspirations, methods, and summary results of associational analyses of Indiana Assessment Data. The study was based on the recognition of policy makers' needs to understand their causes of existing conditions in their schools and to be able to evaluate compound implications of their actions. A survey data base was used and an effort was made to select variables which corresponded directly to present policy questions and which could be supported by a review of recent literature. Scaling was kept to a minimum and no prior assumptions were formulated about what analyses might signify. The first section examines the background, purposes, methods, procedures, and major results obtained by a reanalysis of the 1973 assessment data. The major objectives of this study were to determine what aspects of the instructional process are most effective in increasing reading performance, and which of those important characteristics which govern reading ability could be altered within the context of the educational community. The second section is a summary of preliminary investigations. The third section is a summary of results with the student as the unit of analysis. The fourth section is a summary of results with the school as the unit of analysis. The two attachments include variable definitions and selected references. (ED119135).

Geoffray, Alice R. **Career Education in Louisiana: An Annual Report 1973-74; Brief Success Stories in Career Education in Louisiana.** Louisiana State Department of Education. Baton Rouge, Louisiana. November 1977.

> The publication describes the development an implementation of a State plan for career education in Louisiana (1973-74) based on a nine-component model. The components described are: curriculum development and revision, career education inservice training at the elementary and secondary level, inservice training at the college and university level, the teacher competency model, communication skills program, vocational-technical school programs, elementary-secondary program development, human relations, and needs assessment. For each component, goals, objectives, methods used to achieve objectives (results), and funds allocated are discussed. Thirty-three pages are devoted to brief descriptions of 1973-74 career education activities in 66 local school districts. (ED120375).

Georgia Department of Education. **Needs Assessment Package.** Atlanta, Georgia: Georgia Department of Education, 1974.

> This manual is an introductory, utilitarian package for needs assessment. A procedure which utilizes community, professional, and student participation and provides an introduction to decision making is employed. The package is flexible in duration and can be used in projects requiring compliance with Title III requirements. Step-by-step operations are described, and samples of useful forms are provided. A bibliography is included. (ED107695).

Hawaii State Department of Education. **Foundation Program Objectives for the Hawaii State Department of Education.** Honolulu, Hawaii: Hawaii Department of Education, 1974.

The Foundation Program is designed to assure equal opportunities in education in Hawaii. This booklet contains eight Foundation Program objectives, with an explanation of each. Also included are related subobjectives with full explanations.

______**Hawaii Educational Assessment: A Manual of Guidelines for Development and Implementation of the Hawaii Department of Education Statewide Assessment System.** Honolulu, Hawaii: Hawaii Department of Education, October 1974.

This manual presents a systems approach for a statewide assessment of learner performance. Included are: a discussion of the approach, definitions of terms, literature review, assessment guidelines, and examples of instruments and results. Designed for Hawaii, the manual is a useful reference for interested educators.

Helper, John W. **An Assessment of Learner Needs in Colorado, School Year 1970-71.** Denver, Colorado: Colorado State Department of Education, 1971.

Two types of information are reviewed in this report: (1) descriptions of some educational outcomes commonly desired in Colorado, and (2) descriptions of student performance on an assessment inventory administered in the spring of 1971. Interpretations of these state-wide findings should be made by local district personnel in terms of specific objectives for their school program. (ED068514).

Hershkowitz, Martin. **A Study to Validate Goals for Public Education and to Assess Educational Needs in the State of Maryland.** Maryland State Department of Education. Baltimore, Maryland. 1972.

The purpose of this study was to provide input for educators through a systematic review of the goals established by the Maryland State Department of Education, by the determination of goal-gaps and the determination of critical needs; and by an optimum allocation of available resources. An additional benefit of this study was the collection of data at the school district level which provided local decision-makers with needs assessment input for program planning. The study was conducted in two stages: (1) an extensive self-administered questionnaire, and (2) a review of the standardized achievement testing program in each of Maryland's local education agencies in order to derive a statewide achievement score for the average student. Over 11,000 respondents from ten groups -- students, school staff, central staff, parents, boards of education, general public, business/industry, elected and appointed officials, state department staff, and postsecondary educators -- were involved in the study. The respondent groups were asked questions on goals, processes, and issues, while educators were asked additional questions on educational program needs. (ED086720).

Illinois State Board of Higher Education. **Manual of Directions for the Special Needs Assessment Program SNAP.** Ilinois State Board of Higher Education, Springfield, Illinois. 1974.

The Special Needs Assessment Program (SNAP) is designed to help teachers, parents, and children focus attention on individual pupils as human beings who need help in handling a variety of problems. The project's main intents are to help faculty in identifying critical needs and concerns of pupils and to encourage the building of instructional programs that are responsible to these needs and concerns. The procedures for initiating the program are simple and tend to be effective due to a grass roots approach and high teacher involvement. The assessment program includes four phases: diagnosis, prescription, implementation, and evaluation. Through the use of a survey instrument, the handicapping problems of pupils are first identified, then involved faculty members think through possible ways of helping pupils who have the most numerous and serious problems. Evaluation consists of assessing individual progress rather than in measuring behavior according to some imaginary norm. One of the appealing features of this program is that teachers develop and devise their own strategies and ideas for alleviating student problems. A series of items that teachers find successful are listed. The point to be stressed about the use of the data collected is that individual teachers can do as little or as much as they desire depending on their energy, their perception of students' needs, and peer encouragement. (ED121323).

______**Manual of Directions for Parent Perception Project: A Supplementary Project of the Special Needs Assessment Program SNAP.** Illinois State Board of Education, Springfield, Illinois. 1975.

Parental involvement is supplementary to the main line approach of the Special Needs Assessment Program (SNAP) whose main thrust is the diagnosis and remediation and/or partial alleviation of pupil needs by the child's teacher. This Parent Perception Project is an approach which provides for the involvement of parents in the process of identifying needs which they feel their children may have to an unusual degree. It is assumed that a school will have completed the teacher assessment of pupil needs before going this project. Many schools may then wish to involve parents by providing them with the opportunity to identify their children's needs, or to find out if there are discrepancies in perception of a child's needs between parents and teachers. It is for these schools that this manual of direction is written. The manual includes information on the purpose and procedure of the SNAP program and on the responsibilities of principals, teachers, and parents. Words of caution and advice are offerd to those who administer the program. These suggest that members of the teaching staff be fully informed on all aspects of the project, and that the supplementary program be administered after the school has completed the SNAP program. It is also suggested that special attention be given to many parents in lower socioeconomic category, and that administrators not be discouraged if a small minority of parents voice their objections to the program. (ED123322).

Ingersoll, Gary M.; and Others. **Teacher Training Needs: Conditions and Materials: A Preliminary Survey of Inservice Education.** Report No. 8. National Center for the Development of Training Materials in Teacher Education, Bloomington, Indiana. February 1975.

> Surveyed for their implications on training material development were the training needs of 745 elementary and secondary school teachers and training conditions cite by 40 inservice leaders in 26 school districts. Among the seven clusters of specified teacher needs (including interpersonal communication and administration, assessment and discipline) identified on the Teacher Needs Assessment Survey, developing pupil self and individualizing instruction were designated as the most needed training areas. Questionnaire responses described a wide variety of inservice characteristics including frequency, meeting place, content, and teacher incentives. Analysis of data indicated that inservice topics were usually selected by persons other than the participants, follow-up and evaluation were inadequate, and there was a need for clearer inservice goals and objectives. Implications for materials development included the need for separate production of inservice and preservice materials, for material design which would allow for individual teachers' needs, and for restricting materials to skill development rather than explication or motivation only. (ED108407).

Keene State College; New Hampshire State Department of Education. **The New Hampshire High School Career Education Model. Program Assessment System and Conceptual Framework for High Schools in New Hampshire.** Office of Education (DHEW), Washington, D.C. June 1976.

> A model of an "ideal" high school career education program with a system for assessing a high school's progress toward the ideal are presented in this document. An introduction describes briefly the source of the model, a project to demonstrate the most effective methods and techniques of career education at the secondary level in four high schools in New Hampshire. Part 1 is the system for assessment of high school career education efforts. It is made up of (1) six questionnaires, one on each career education goal, (2) goal prioritizing forms, (3) a community partnership checklist to rate school and community involvement; and (4) a summary development in a one-page format. Part 2 is a conceptual framework for high schools in New Hampshire. It includes 13 comprehensive goals (from which the 6 career education goals were selected) with a list of general conditions that should be met if each goal is to be achieved. Part 2 also includes a more complete discussion of many of the aspects to be assessed in Part 1 and provides the philosophy behind the assessment system. (ED137558).

Kentucky State Departmet of Education. Frankfort. **Kentucky Educational Needs Assessment Study Phase I. I. Final Report. II. State and Regional Profiles.** Bureau of Elementary and Secondary Education (DHEW/OR). Washington, D.C. August 1970.

> The Kentucky State plan for the collection of data concerning the cognitive, affective and psychomotor needs of school children is discussed. The plan entails: (1) identification of the needs of learners to be served. (2) Determination of the criticality of the learner needs that are identified by applying judgmental values. (3) Establishment of performance goals for the alleviation of critical

needs and development of programs to meet these critical needs. (4) Application of measures of accountability based upon performance goals. To the progress of such programs, in this context, the needs assessment study is but the first step toward comprehensive planning. This report synthesizes and displays the findings of a year spent in setting the stage, creating an awareness effort, establishing an appropriate organizational framework, and implementing a state-wide study of learner needs. (ED111854).

Krebs, Robert E., and Stevens, Gail A. **An Assessment of Needs Related to the Education of Migrant Children in the State of Washington.** Toppenish, Washington: Center for the Study of Migrant and Indian Education, 1971.

This study identifies the educational needs of migrant children and makes recommendations for programs to improve and equalize educational opportunities for these children in the State of Washington. Working with the thoughts of people and all ages, lay persons and educators generated guidelines for use by staff at the Center for the Study of Migrant and Indian Education in developing future programs, in training programs for bilingual paraprofessions, in "alternative" educational programs, in mobile facilities, in performance contracting, and in the use of educational vouchers. Lists of some migrant centers and service organizations in the U.S. are provided in the appendix. (ED050851).

Manion, Raymond C.; and Well, Nancy L. **Educational Needs in the State of Kansas, as Indicated by State Department of Education Staff.** Topeka, Kansas: Kansas State Department of Education, 1970.

The professional staff of the Kansas State Department of Education answered a questionnaire survey in which they contributed 142 statements of educational needs and reported that 25 need studies had been conducted. Three areas of need reported are: 1) organizational reform, 2) definition of educational purposes, and 3) improvement of educational programs. (ED046128).

Meister, Ellen H. **Career Education.** Wisconsin State Department of Public Instruction, Madison, Wisconsin. 1975.

Career education became a force for educational change in 1971 when the federal government provided the initiative and "seed" money to develop career education models in each state. The response of school systems and its implications are explored in this article. The first section focuses on the definition of career education as an outgrowth of initiative for educational reform. A brief historical perspective on career education includes three major reasons for its rapid growth: (1) social and economic conditions; (2) theoretical and practical work on various elements that combined naturally with the concept; and (3) the change strategy used for the development, diffusion, and adoption of career education was effective in securing widespread participation. Some general ways of knowing whether the career education thrust is making any difference in terms of students educational implementation, and society are cited; external and internal assessment guidelines described and analyzed; and strategies considered for moving the concept toward an operational form. (ED120972).

Moore, Vivian R. **Statewide Community Participation in Needs Assessment.** Paper presented at the annual meeting of th American Educational Research Association (59th, Chicago, Illinois), April 1974.

The Alaska educational program for intercultural communication is developing a method of needs assessment which is unique to the state, possibly to the nation. The staff is comprised of highly creative and interculturally sentient people. All uncredentialed in evaluation. Their task has been to develop structures which foster communication where it has not previously occurred. Between white school teachers and administrators, and native parents and board members, as educational needs have been identified, working relationships have been built so that constructive action toward resolution of problems begins with the needs assessment. (ED093384).

The N.C. Kephart Glen Haven Achievement Center. **Psycho-Motor Needs Assessment of Virginia School Children.** Richmond, Virginia: The Virginia State Department of Education, November 1973.

In an effort to assess psychomotor needs among Virginia school children, this study focused on children in Kindergarten through grade 4 and in special primary classes for the educable mentally retarded. The first four chapters contain an introduction to the project, a discussion on the selection and development of psychomotor assessment measures, information on the collection of data, and the method of data analysis. The remainder of the book contains charts, tables, and appendices which interpret the data collected. A reference list is also included.

Nevada Department of Education. **Comprehensive Planning Model for Educational Programs.** Carson City, Nevada: Nevada Department of Education, 1973.

This document provides information about planning and evaluation within the Nevada Department of Education and presents a comprehensive planning model which can be applied at any level of operation in an enterprise. Diagrams and flowcharts are included. (ED086727).

_____**Evaluation Guidelines.** Carson City, Nevada: Nevada Department of Education, July 1973.

The guidelines presented are intended to serve as a practical reference manual to provide assistance in the evaluation of learner performance. A general overview is included along with chapters on evaluation design and implementation, measurement of objective attainment, reporting, and recycling. A glossary and an appendix on testing procedure are included.

_____**Needs Assessment Guidelines.** Carson City, Nevada: Nevada Department of Education, June 1973.

Beginning with a needs assessment model, this booklet examines the three simultaneous sets of activities in needs assessment: learner, society, and program. Various phases and requirements under each set are discussed individually and as each relates to the others.

_____**1973-1974 Nevada Needs Assessment.** Carson City, Nevada: Nevada Department of Education, May 1975.

This document lists specific state level performance objectives used in the spring and fall testing for needs assessment. Both cognitive and affective measures were made in fall and spring on the same students. The performance objectives are followed by the appropriate pre-test and post-test comparisons, with appropriate comments made on some comparisons.

_____**Post-test Data Summaries.** Carson City, Nevada: Nevada Department of Education, May 1975.

This document presents a summary of the data collected in the spring cognitive post-tests and affective post-survey assessing cognitive areas, attitudes toward school, and self concept. The post-test summaries deal with the same selection of students cited in the pre-test data summary. Cognitive areas assessed include reading vocabulary, reading comprehension, arithmetic concepts, and arithmetic applications. A glossary is included.

_____**Pre-test Data Summaries.** Carson City, Nevada: Nevada Department of Education, March 1974.

Results of fall cognitive pre-tests and affective pre-surveys which were used to investigate statewide attitudes toward school and self concept are presented in this report. Also of concern was the relationship of these attitudes and concepts to cognitive achievement. The information is given in the form of charts representing results of testing of a stratified selection of students from all seventeen of Nevada's school districts and in grades 3, 5, and 7. A glossary is included.

New Jersey Department of Education. **Comprehensive Planning in Education: A Planning Handbook for School Districts.** Trenton, New Jersey: New Jersey Department of Education, April 1974.

This handbook represents the response by the Bureau of Planning in New Jersey to the demands for more information about comprehensive planning models and needs assessment techniques. The first section of the handbook represents an overview of the comprehensive planning process and attempts to answer some general questions about the process. The second section reviews the components of the planning process in greater detail defining and clarifying each phase and its relationship to the whole. The final section of the handbook contains a glossary of common terms in educational planning. (ED091819).

_____**Needs Assessment in Education: A Handbook for School Districts.** Second Printing. Trenton, New Jersey: New Jersey Department of Education, December 1974.

This handbook is divided into five sections with an introduction. The first section deals with a planning overview explaining the what, how, and why of comprehensive planning. The second section is a needs assessment overview dealing with rationale and results. The third section provides a comparison of some well-known assessment summaries, characteristics, and criteria for selection of the models. The fourth section focuses on who is involved, what takes place, and what happens after the needs assessment is completed in each model, and the last section is an appendix, containing a list of definitions from each model, questions, and a bibliography.

_____**Goal Development: A Planning Handbook for School Districts.** Trenton, New Jersey: New Jersey Department of Education, August 1974.

> This handbook is divided into five sections and an introduction. The first section describes a seven-step comprehensive planning process emphasizing goal development. The second section carried through the process of goal development keying on what goals are, how they are developed, and how they are used. Examples of goals are provided. The third section describes three types of models for goal development: conference, interview, and survey. The fourth section deals with managing goal development activities through an advisory body. Choosing activities, sample activities, and reports are treated. The appendix contains guidelines for discussions and recording as well as a bibliography.

_____With the assistance of -- Educational Testing Service, Princeton, Opinion Research Corporation, Princeton. **The "Our Schools" Project on Needs Assessment.** New Jersey State Department of Education. Trenton, New Jersey.

> The major objective of "Our Schools" Project was to develop and recommend to the New Jersey State Department of Education and the New Jersey State Board of Education, a set of state-wide educational goals established through a program of broad-based citizen involvement.

New Mexico State Department of Education. **A Needs Assessment Process Guide.** Santa Fe, New Mexico: New Mexico State Department of Education, n.d.

> This document contains an overview of needs assessment, its tasks, and agents responsible for tasks. Strategic steps and criteria for executing them are included. Questions about design, data analysis, priorities, and evaluation are treated. Appendices include numerous general and special instruments and a state resource directory.

North Carolina State Department of Public Instruction. **Career Education: A Report of the North Carolina Career Education Task Force (Curriculum/Administrative Series).** Raleigh, North Carolina. 1973.

> A task force comprised of members from the North Carolina State Education Agency has developed a statewide plan for career education, which is outlined. Seven sections present: (1) objectives, task force background, and personnel; (2) summary of information on North Carolina school programs; (3) a definition of career education encompassing the concepts of learning to live, Learning to learn, and learning to make a living; (4) major program components, including curriculum design (K-12), professional development, community involvement, teaching materials, equipment, facilities, and evaluation; (5) identification of state agency roles; (6) 15 suggestions regarding career education program implementation for local school personnel; (7) conclusions, recommendations are outlined for the program in general, and for curriculum, staffing and professional development, resources, and research and development. A policy statement by the chairman of the State Board of Education regarding the task force report is included. (ED118970).

Ohio Department of Education. **Ohio's Statewide Needs Assessment.** Columbus, Ohio: Ohio Department of Education.

> This booklet considers the reasons for, and the questions that often accompany, needs assessment. A basic explanation of Ohio's needs assessment program -- what it is and what it is not -- begins this booklet. Details on instrumentation and surveying for the Ohio assessment plan follow, along with a section on the planned analysis of data.

Oklahoma State Department of Education. **Evalution Book 1: A Manual for the Third Phase of Oklahoma Accountability.** Oklahoma City, Oklahoma: Oklahoma State Department of Education, 1975.

> Produced by the Oklahoma Department of Education to aid school districts, this manual briefly covers the accountability movement in Oklahoma, evaluation and ideas about how teachers evaluate. Examples of teacher evaluation techniques are given along with ideas about how administrators use evaluation information.

_____**Oklahoma Statewide Assessment: Needs Assessment Phase IV.** Oklahoma City, Oklahoma: Oklahoma State Department of Education, 1974.

> This report presents a review of previous phases of the Oklahoma assessment and presents the 1974 assessment results. Recommended actions are made which apply to the Department of Education, local districts, and professional educators.

Pennsylvania Department of Education and Bucks County Intermediate Unit #22, Division of Curriculum and Instruction, Bucks County, Pennsylvania. **Quality Education Program Study (QEPS) (An ESEA Title III Project).** Office of the Executive Director, Doylestown, Pennsylvania.

> The material contained in the 20 paperback QEPS booklets is an effort to define and clarify the Ten Goals of Quality Education adopted by the Pennsylvania State Board of Education in 1965. There are three project reports as follows: A - Project Description, B - General Needs Assessment, C - Characteristics of Incidents and Their Reporters. For each of the Ten Goals, two booklets have been written. The first is a **description** of the goals and contains specific indicators related to the following components: 1. The categories of student behavior, 2. Rationales of effective student behavior, 3. Related teacher strategies. The second booklet is related to **Needs Assessment** of the goal and contains: 1. Instructions, 2. General needs assessment instruments, 3. An analysis of instruments related to that goal. Thus, there are two booklets for each of the Ten Goals. The areas covered by each of the goals are as follows: Self-understanding, Understanding Others, Basic Skills, Interest in School and Learning, Good Citizenship, Good Health Habits, Creativity, Vocational Development, Understanding Human Accomplishment, Preparing for World Change.

Pennsylvania State Department of Public Instruction. **Proceedings of the State Advisory Committee on the Assessment of Educational Quality.** King of Prussia, Pennsylvania: Research Information Services for Education, 1968.

> Proceedings of the first meeting of the State Advisory Committee of the

Pennsylvania Bureau of Quality Educational Assessment are provided. Concerns of the Committee were related to the sampling procedure of April 1968 testing. (ED081787).

Phillips, Francis T., Jr. **Virginia Educational Needs Assessment of Public School Children in the Cognitive, Affective and Psycho-Motor Domains.** Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois. April 1974.

The study identified the critical educational needs of each geographical area in the state and indicated that measurement should be in terms of the cognitive and affective behavior of students. Phase One of the study was conducted on the concept that the school and classroom, as a social system, provides the setting within which the self-system of the learner is expressed in three output areas: learner-oriented behavior in the cognitive domain, learner-oriented behavior in the affective domain, and the interrelationships of these cognitive and affective behaviors these behavioral outputs were considered as indicators of self-perceptions. Verbally expressed behaviors, and manifest behaviors which the learner originally possessed on entry to the school and classroom. Phase Two concerned with the psycho-motor (P-M) domain, yielded information about the nature of the P-M domain. Data regarding instruments of measurement, and incidence figures for the school population. Eight separate areas of P-M functioning were assessed. Through Phase Two of the needs assessment study in all three domains, Virginia hopes to become fully accountable for providing quality education for every child in the public schools of the commonwealth. (ED093934).

Pyatte, Jeff A.; Breivogel, William F.; and Durall, Edwin P. **Introduction to a Needs Assessment System.** A Complete Training Program. Pensacola, Florida: Educational Research and Development Center, the University of West Florida, 1975.

Produced for the Florida Research and Development Program, Florida Department of Education, this is a complete training program designed to enable the trainee to use a particular needs assessment system. The program represents completion of the second phase of a three-phase Needs Assessment Development Project being carried out by the Florida Department of Education. Instructor's manuals, booklets, simulations, evaluations, and audio tapes are included. The program is designed for completion in 13 hours as well as to be simple, interesting, and unusual.

______and Others. **1976 Needs Assessment Materials. An Annotated Bibliography. Research Bulletin.** Florida Educational Research and Development Council, Gainesville, Florida. 1976.

One hundred and fifty-eight entries contain the numbered citation, an annotation, the address or source for securing the cited material, and a statement of cost and any special instrucions for ordering. Entries are alphabetized by author. Two indexes are provided to assist the user in locating material that might be of interest. In one of these, entries are listed by type of material: training materials, papers, books and booklets, bibliographies, and articles. In the other, they are listed by the following areas treated in the material: needs assessment, evaluation, educational accoutability, educational planning, management, student assessment, goals and objectives, and tests/test development. (ED133874).

Research Group, Incorporated. **Needs Assessment Training Package for the Utah State Department of Social Services (The Designated Title XX Agency).** Research Group, Incorporated, Atlanta, Georgia, 1975.

Needs assessment survey guidelines, questionnaires, and data analysis forms are presented as a supplement to the Utah Department of Social Services needs assessment training manual. Detailed guidelines for conducting interviews are offered, including methods of increasing respondent receptiveness, scheduling, avoiding bias, editing responses, and interpreting questionnaires. The following forms are presented in conjunction with the needs assessment tasks as identified in the manual: (1) questionnaire for survey of agencies to determine services delivered and client populations served by each agency; (2) form for compiling and analyzing information collected from the agency survey; (3) a problem-oriented and service-oriented questionnaire for the mail-out survey of service providers; (4) a form for compiling the results of the provider survey; (5) a questionnaire for surveying persons eligible to receive services who have not chosen to use the service system; and (6) a form for compiling and analyzing the results of that survey. The companion volume is available.

Rhode Island State Department of Education. **Needs Assessment: A Manual for the Local Educational Planner.** Office of Education, Washington, D.C. 1975.

The purpose of this manual is to provide guidelines and assistance to local education agency planners in the needs assessment process. In the first section, the needs assessment process is discussed within the overall framework of the program development cycle. Subsequent sections treat each step in the process. Providing a model, issues are raised, techniques are discussed, and alternative methodologies are presented. Important resources and necessary tools available to assist in the process are identified. Along with some possible solutions, the manual is intended to be a concise outline of systematic processes for identifying needs and choosing solutions to respond to those needs. (ED106978).

Rhodes, Gregory; and Smith, Victor R. **Inservice Needs Assessment: Social Studies Teachers in Indiana.** Ball State University, Muncie, Indiana. Department of History. 1975.

Designed to improve inservice teacher training, this report surveys the kinds of inservice activities needed by social studies teachers in Indiana during 1975. Nearly 40 percent of the state's social studies teachers responded to the questionnaire which focused on how inservice activities should be designed, when they should be held, and what the content or substance should be. The results indicate that regional meetings and self-initiated teacher training kits were the most popular form of inservice training. Release time during the school day was the most popular time period. Classroom techniques, content/materials/current curriculum, and alternative classroom approaches were the most popular subjects for training. Within the category of the classroom techniques, student reading problems, exploring controversial issues, and inquiry techniques were deemed most necessary by the social studies teachers. Current problems and issues were the most popular areas in the subject-content category while phase elective minicourses, independent study, and individualized learning packets were three alternative approaches about which most teachers wanted to know more. Regional differences and grade-level differences in the needs assessment results are also included. (ED125967).

Ribble, Susan Ketchum. **State Goals for Elementary and Secondary Education.** Report No. 4. Denver, Colorado: Colorado Department of Education, 1973.

Revised in September 1973, this booklet includes formal and tentative goal statements written by several state education agencies and listed by state. The goals were obtained by a survey conducted by the State Educational Accountability Repository (SEAR), a program of Cooperative Accountability Project (CAP) which is administered by the State of Colorado. (ED083747).

South Carolina Department of Education. **South Carolina Needs Assessment Model.** Office of Planning and Evaluation, Columbia, South Carolina.

Designed especially for identifying needs to assist board members and top management personnel in making decisions at the state level, the South Carolina Needs Assessment Model is a research-oriented instrument including a series of components which led to the identification of both learner and system needs through perceptual and empirical data. The major steps in the model are as follows: 1) selection of information sources and tests for measuring discrepancies; 2) collection of data for each component; 3) preliminary identification of needs through discrepancy measurement and matching; 4) final identification and approval of needs; and 5) adoption of objectives and development of long-range plans.

_____**Catalyst: Alternative Methods of Conducting a Needs Assesment.** Columbia, South Carolina: South Carolina Department of Education, January 1975.

The first chapter of this document gives a brief outline of the purposes and methods of conducting needs assessment. In the second chapter requirements for district needs assessment, contained in the Defined Minimum Program are reviewed and various services available form the State Department of Education to help meet these requirements are presented. The third chapter describes how three South Carolina districts, one small, one medium, and one large, used their needs assessment as part of the planning process. Reports of procedures and outcomes of two school district needs assessment models from other states (Dallas, Texas, and San Berdino, California) are presented in the fourth chapter. The fifth chapter contains detailed descriptions of a combination of needs assessment procedures from other parts of the country and from current literature on the subject. A bibliography is included.

Texas Education Agency. **Education Needs Assessment: A Statewide Design for Texas.** Austin, Texas: Texas Education Agency, 1973.

This document provides the general framework of needs assessment activities in Texas. Flowcharts and step-by-step methods for assessing pupil needs and for establishing a framework for coherent educational needs assessment are included. A list of TEA resource agencies and the services they provide is included. A chart depicting the long-range plan for needs assessment (1967-1975) is also provided.

Van Fleet, Donald. **Kentucky Educational Assessment Program. Three Year Summary.** Paper presented at the annual meeting of the American Educational Research Association (59th, Chicago, Illinois, April 1974).

The process of assessing learner needs in Kentucky developed within a planned framework of tasks to be accomplished sequentially in a time frame directed toward an ultimate goal of comprehensive planning. One hundred specific needs categorized under 10 priority general needs of the state's learners where identified through a survey resulting in the development of learner performance objectives for grades 4, 7, and 11. Behavioral expectations are listed for each grade. Tests were then selected for assessing learner needs in mathematics, reading, and physical education. The assessment program was systematically broadened to include more districts in the sample and will evenutally assess progress toward the achievement of all the goals of education concerning the cognitive, affective, and psychomotor needs of Kentucky school children which have been specified,published, and distributed statewide. Need areas appearing after the fourth grade in certain reading and attitude areas. (ED093917).

Virginia State Department of Education. **Guidelines for Implementing and Relating the Virginia Needs Assessment Study to Standards of Quality and Objectives for Public Schools in Virginia.** Richmond, Virginia: State Department of Education, August 1972.

This publication is designed to serve as a handbook for needs assessment in general as well as to offer ways of adapting the Virginia Needs Assessment Study and the Standards of Quality and Objectives for Public Schools in Virginia to appropriate local situations. The Standards of Quality and suggestions for implementing the Needs Assessment Study are addressed along with a discussion of their implications. A summary of the achievements and needs identified in the Virginia Needs Assessment Study is also provided.

Woodbury, Charles A., Jr.; and Others. **Research Model for State Educational Needs Assessment.** Paper presented at American Educational Research Association Annual Meeting, Minneapolis, Minnesota. March 1970.

Assignment of ESEA Title III monies to State agencies mandates a research model for needs assessment to facilitate interstate comparisons and generalizations. Theoretical postulates for and empirical evidence from the Virginia Needs Assessment Project suggest a prototype design, moving in three phases from ideas into program outcomes. Phase I identifies documentary policy guidelines from authoritative and nonauthoritative sources internal and external to the State, identifies documentary program recommendations from internal authoritative sources, and secures perceptions of educational objectives from internal nonauthoritative sources. Phase II involves comparative analysis of documentation and perceptions with actual attainments in learner-oriented and learner-facilitative domains to identify gaps as operationally defined needs, and involves determination of need characteristics -- incidence, criticality, dispersion, and consociation. Phase III involves a planning design for periodic reassessment. (ED042263).

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Coffing, Richard T.; and Others. **A Hypothetical Application of a Needs Analysis Methodology for Special Education Materials: A Scenario Project MORE Technical Report No. 2.** Kansas University, Lawrence. Bureau of Child Research.; Parsons State Hospital and Training Center. Kansas. August 1974.

> A scenario illustrates how a prescriptive set of rules and procedures for identifying, defining, and measuring needs (a needs analysis methodology) can be applied to determining the need for instructional materials for severely - moderately retarded persons. The scenario describes hypothetically how a needs analyst with the National Needs Analysis Design might implement the three basic steps in the design: (1) identifying information users' concerns for information needs; (2) obtaining and reporting definitions of needs, and (3) obtaining and reporting measurement of need fulfillment. After reporting the result the needs analyst might begin a second iteration with other needs analyst needs, and/or definers of concern. In addition the needs analyst evaluates the utility of the information. The answers would be used by the needs analyst to revise the application of needs analysis procedures and to modify the procedures themselves, as necessary. (ED097011).

Rookey, T. Jerome. **Needs Assessment: Needs and Goals-Model: East Stroudsburg. Project Names Workbook.** East Stroudsburg, Pennsylvania: Educational Development Center, East Stroudsburg State College, Pennsylvania, 1975.

> Needs assessment is basically a simple undertaking, composed of processes familiar to administrators. Unfortunately, its "actual simplicity and usefulness have become lost in statistics and consultant verbosity," according to Rookey. He states that the East Stroudsburg (Pennsylvania) model is intended to minimize confusion and offer an uncomplicated, economic means of needs assessment.
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> The needs assessment model presented by Rookey takes about two months to conduct. A "pre-plan" outlining "what is going to happen when, how, and to whom" is formulated by a core committee of administrators, teachers, and community members. This plan is publicized in the community and among the educational staff. Through use of a questionnaire, the district's goals are defined. Program assessment data are compiled from district-wide test scores. Needs are defined by ascertaining the discrepancies between goals and performance. And finally, program decisions based on the assessment must be made.
>
> This workbook includes sample questionnaires and goals, as well as statistical methods to determine the weights (importance) of each set of recommendations. (ED106989).

_____**Project NAMES Workbook.** East Stroudsburg, Pennsylvania: East Stroudsburg State College, May 1975.

> The criteria for Project NAMES needs assessment model were that 1) be inexpensive, 2) be locally oriented, and 3) be locally manned. Two basic components make up the model: 1) a cross-sectional coordinating body and 2) a

local, mailed survey. The model was developed by pilot testing a system for a two-year period. Since its completion it has been successfully used by several districts in Pennsylvania and New Jersey.

Stephens, Kent G. **A Fault Tree Approach to Needs Assessment.** Brigham Young University, Provo, Utah.

Fault Tree Analysis (FTA) is a method for analyzing and predicting the most probable modes of failure of a system in order to redesign or monitor the system to increase the likelihood of success. FTA provides guidelines as to what should **not** be done as an added dimension to the traditional approach of pursuing what **should** be done in needs assessment. It is process rather than product-oriented. For needs assessment FTA may be used alone or combined with methods of goal setting to derive high priorities of need on a logical basis.

Two kinds of analysis are made -- qualitative and quantative. The qualitative analysis is accomplished through the development of a logic tree, consisting of a series of events formulated in a step-by-step process, related to a principal "undesired event." The quantative analysis, for which a computer program is available, combines markov processes, matrix and Boolean algebra, logic, and Bayesian probability. The completed tree is drafted by computer and a "strategic path" is traced out, showing the chains of events in order of their criticality.

Small groups interact to generate the inputs. They can be trained in a day or two, and large trees of several hundred events can be developed in stages over one or two weeks. It is not necessary for participants to understand the theory or the mathematics of the process in order to use FTA. (ED129929).

University of Illinois. **Cooperative Regional Comprehensive Need Appraisal.** University of Illinois, Urbana, Illinois.

The University of Illinois' Cooperative Regional Comprehensive Need Appraisal project was udertaken in cooperation with four comprehensive community colleges in nine northwest counties of the State of Illinois.

The purpose of the project was to determine (1) what educational needs exist in the region and (2) whether significant differences in educational needs exist between the "general" population and University of Illinois alumni living in the region. Nearly 2700 citizens and alumni were contacted via telephone by University trained interviewers. Through a 51-question questionnaire, data was collected on educational interests and needs related to college level and secondary school credit and non-credit continuing education programs.

Washington State University, Pullman College of Education. **Curriculum for Graduate Program to Prepare Vocational Education Curriculum Specialists (VECS). Module 2: Evaluating and Using Needs Assessment and Manpower Information.** Bureau of Occupational and Adult Education (DHEW/OE), Washington D.C., Division of Research and Demonstration, 1976.

Part of an eight-module, graduate level, competency-based curriculum to prepare specialists in vocational education curriculum, this module provides information, activities, and experiences to assist in planning and implementing an assessment of curriculum development needs as the initial step in vocational program planning. Pre-test, post-test, and a learning activities which are organized according to nine major performance objectives. The first three objectives are concerned with definitions and rationale for the needs assessment process, vocational education needs assessment, and various scope and models of needs assessment. Objectives four and five introduce sources of manpower data and ways of using manpower information in curricular decisions. Objective six deals with the special needs of the disadvantaged and handicapped, while the following objective requires learners to develop a data collection plan. In performance objective eight, learners develop a plan for collecting local needs assessment data. The final objective requires learners to analyze and interpret needs assessment information in making recommendations for curriculum change. These major objectives are subdivided into several instructional objectives which are accompanied by related learning activities. The learning activities include fact sheets, worksheets, activity sheets, and keys. (ED133560).

Miscellaneous

Ahn, Sang Kee. **A Needs Assessment Model for Educational Program with Application of a Modified Delphi Technique.** Doctoral Dissertation. Florida State University, Florida. 1972.

> This paper discusses a method of educational program needs assessment based on the analysis of the individual, the society, and the nation. It looks at the possible uses of the Delphi Technique. Part one is concerned with the sources of educational needs; part two outlines a general model of needs assessment; part three provides an example of a needs assessment applied to a social studies program evaluation.

American Institutes for Research in Behavioral Sciences. Vocational Education Curriculum Specialist (VECS). Module 4: Assessing Manpower Needs and Supply in Vocational Education. Study Guide. (Teaching/Learning Module). Palo Alto, California. 1976.

> One of 15 core modules in a 22-module series designed to train vocational education curriculum specialists (VECS), this guide is intended for use by both instructor and student in a variety of education environments, including independent study, team teaching, seminars, and workshops, as well as in more conventional classroom settings. The guide has five major sections. Part I, Organization and Administration, contains an overview and rationale, educational goals and performance objectives, recommended learning materials, and suggested reference materials. Part II, Content and Study Activities, contains the content outline arranged by goals. Study activities for each goal and its corresponding objectives follow each section of the content outline. Content focus is on the types of manpower and economic analyses used in vocational education, the use of a variety of sources of employment statistics that directly affect the planning of vocational education programs, and techniques for conducting manpower needs analyses. Part III, Group and Classroom Activities, suggests classroom or group activities and discussions keyed to specific content in the outline and to specific materials in the list of references. Part IV, Student Self-Check, contains as a pre-test or post-test. Part V. Appendix, contains suggested responses to the study activities from Part II and responses to the student self-checks. (ED132405).

Bartholomew, Bernard R. **Special Feature on Teacher Instructional Needs Assessment: A National Survey Highlights the Issues.** Today's Education. Vol. 65, No. 4, pp 72-9, Nov-Dec, 1976.

> Results are presented from the third biennial National Education Association "Survey of Instructional Problems" affecting teachers in their current assignments and particular concerns regarding class size, discipline, mainstreaming, and inservice education. (EJ15774).

Baumheier, Edward C., and Heller, Gretchen A. **Analysis and Synthesis of Needs Assessment Research in the Field of Human Services.** Center for Social Research and Development, Denver, Colorado. July 1974.

An overview of the content and methodologies of needs assessment research is presented, studies to date in this field are reviewed, and the factors affecting utilization of needs assessment data are identified. The purpose of needs assessment research is defined as the determination of the extent and characteristics of the areas of dysfunction as a basis for planning and developing community human service systems. The political and structural impetus behind such research is discussed. Following an outline of the conceptual framework for needs assessment, the following categories of information are identified and uses are noted: profile knowledge and utilization of services; barriers to service utilization; existing community information system; community/service resource assessment; and political resources. Problems are considered, followed by discussions of several assessment methodologies. Secondary data analysis is seen as an effective way of identifying target areas, while general population surveys document community attitudes and the perceived needs of the nonservice population. Service population surveys provide a first-hand account of the effectiveness of existing services, while surveys of service providers can document needs which require professional judgment. Political and community analyses are effective in learning views of potential supporters or detractors of service system activities. Eight major Federal needs assessment efforts are described briefly, and six community needs studies are assessed, including services integration projects dealing in generalized needs assessment and local planning bodies concerned with providing specific information. The appendix presents a descriptive analysis of the determination of human needs in the United Way Movement. A bibliography is included.

Coffing, Richard T.; and Others. **Needs Analysis Methodology: A Prescriptive Set of Rules and Procedures for Identifying, Defining, and Measuring Needs.** Chicago, Illinois. AERA, April 1974.

This paper reports briefly on some recent efforts to find a process for delineating people's needs as a basis for establishing criteria in designing and evaluating educational services. The paper is designed to help educational decision-makers learn how to get useful information about needs. The solution to which appears to require the invention of some decision rules and procedures. A set of such rules and procedures called "Needs Analysis Methodology" has been developed. The paper indicates one of the basic concepts and design characteristics of needs analysis methodology at a point in time. It reviews some concepts that have been guiding the developmental effort and describes the general framework or design methodology. References and appendixes extend and illustrate the discussion contained in the body of the paper. (ED095654).

Cunningham, Donald J. **Formative Evaluation of Replicable Forms of Instruction.** Paper presented at the annual meeting of the American Educational Research Association. New York, New York. February 1971.

Current thinking and research on the nature of formative evaluation of replicable forms of instruction are summarized. Methodologies appropriate for other evaluation roles (e.g. Summative) are shown to be often inappropriate for the formative role. This paper attempts to classify sources of information concerning the merit of educational materials and to suggest appropriate methodologies of formative evaluation. The data sources are of three broad types: external sources, internal sources, and contextual sources. Several types of data under each heading are examined to illustrate the classification system. (ED051263).

Eve, Arthur W. **School Personnel Utilization.** A Learning Package. Washington, D.C.: National Cluster Coordination Center, United States Office of Education.

This training program consists of four major components: (1) an overview and a guide to the technical assistance training module on Communication/Information flow; (2) the communication processes and principles, with emphasis on how change can be brought about within the schools; (3) an educational and instructional package for administrators to use in examining communication in their schools and implementing necessary changes; and (4) administrator-oriented package on personnel development and utilization emphasizing establishing a helping relationship. All four packages contain questionnaires, readings, references, and diagrams to aid in the teaching process, and cassette tapes on the basic elements of communication are provided.

Finkle, R.B., and Jones, W.S. **Assessing Corporate Talent.** New York, New York: John Wiley and Sons.

This book reviews the various approaches for assessing managerial performance. Even though the authors' views are based on corporate experiences, the book should provide guidance if you are planning a managerial assessment program or want to evaluate an existing one.

Fox, Robert S. Schmuck, Richard; VanEgmond, Elmer; Ritvo, Miriam; Jung, Charles. **Diagnosing Professional Climate of Schools.** Fairfax, Virginia: NTL Learning Resources, Inc., 1973.

Through the Cooperative Project for Educational Development the NTL Institute for Applied Behavioral Sciences has devised a core package of tested instruments which can be used to measure key aspects of a school system's capabilities. This set of COPED instruments was selected as the most universally applicable. They cover areas or organizational problem-solving, staff responsibilities, staff behaviors, staff resources, community involvement and diagnosis. A bibliography is included.

Gall, Joyce P.; York, Linda J. **Training Package Turns School People into Instructional Planners.** Berkeley, California. 1971.

The Communication Program of the Far West Laboratory for Educational Research and Development is creating a self-contained training package on Instructional Planning for administrators, teachers, and others who plan, select, manage, and evaluate instructional programs. The training package consists of three sequential units: Problem Analysis, Goal Setting, and Objectives and Evaluation. The training units are being revised on the basis of preliminary field test results, which showed that the units partially achieved their objectives of improving attitudes, knowledge, and skills relevant to instructional planning. The Problem Analysis unit is discussed in depth to illustrate the research and development cycle used to develop the training package. (ED051273).

Genessee County Health Department. **Workbook for Community Analysis.** Flint, Michigan, 1975.

This workbook provides in-depth methodology for statistical analysis of community conditions. Enclosed are methods for collecting data, profile tables on various characteristics of the population and environment, and detailed analytical processes for examining school.

Guilfoy, Vivian M.; Grothe, Mardell S. **Facilitating the Career Development of Home-Based Adults: The Home/Community-Based Career Education Model. Final Report. Volume III. Appendices.** Education Development Center, Inc., Newton, Massachusetts. 1976.

This third volume of a three-volume final report contains appendices related to the 3-year project to design, develop, and implement a comprehensive delivery system to meet the career-related information, guidance, and referral needs of home-based adults, those 16 and older neither working nor attending school on a full-time basis. Appendix A describes the project manuals, independent products, and films. Appendix B is comprised of data collecion instruments used by the project, and Appendix C presents the various occupational classification systems used in the analysis. (Volume 1 of the final report covers the nature, context, and products of the model. Volume 2 presents research and evaluation findings, with primary focus on home-based adults who used the career counseling service.) (ED13599).

Haggart, Sue A., ed. **Program Budgeting for School District Planning.** Englewood Cliffs, New Jersey: Educational Technology Publications, 1972.

The purpose of this book is to present various analytical concepts, methods, and techniques which may be used to generate information that will be useful to school district decision makers. Both cost and effectiveness considerations are treated, along with analytical frameworks that may be used to facilitate making comparisons among alternatives. Numerous examples and illustraions are provided to show how the analytical concepts and methods can be applied to typical school district program evaluation and planning problems. (ED161654).

Haines, Peter G. **Career Education: In-Service Teacher Education. Information Series Number 92.** Ohio State University. Columbus, Ohio. 1973.

Career Education poses a challenge for in-service education and requires management decision making from all the discipline areas and teaching levels. The major theme of this paper is that sound planning and management of a systematic in-service effort, the structure of the program to be presented, and the instructional systems which supports the effort. The second theme of the paper is that any in-service program dealing with a major change must consider that each school system generally has a large turnover of personnel, who may have little or no knowldge of career education or insight into its operational meaning. A third theme concerns the need to create an in-depth understanding of the nature of career education and how it can add meaning and relevance to instruction. Steps in the strategy for in-service education are outlined, with a strong recommendation that the school district assume the cost of the professional retraining for the major policy change inherent in the career education concept. A case study of a preservice career education module is presented as a model for the design of an in-service program. Appended are instruments to assist district personnel in evaluating materials for career education and an attitudes survey to assess beliefs toward career education. (ED086888).

Hamilton, David L. **Battelle Survey of Educational Needs for Community and Junior Colleges.** Columbus, Ohio. 1973.

The Battelle Needs Assessment Service provides a community college with a systematic method for identifying and documenting needs for asigning priorities, and for compiling information in a form which can be understood and utilized by both educators and laymen for district-wide planning.

Hively, Wells., ed. **Domain-Referenced Testing.** Englewood Cliffs, New Jersey: Educational Technology Publications, 1974.

This book consists of three parts, with separate articles constituting each part. All articles have bibliographies, and most have charts, graphs, and/or illustrations. Part One addresses the basic ideas of domain-referenced testing, Part Two deals with its applications and innovations, and Part Three offers comments on the articles in Parts One and Two, as well as some general observations on the state of the art. A listing of helpful sources completes the volume. In addition to the editor's contributions, such writers as Baker, Popham, Millman, Levine, and others are represented. (Contents of this book were printed originally in the June 1974 Issue of Educational Technology Magazine.) (ED102204).

Hostrop, Richard W. **Managing Education for Results.** Homewood, Illinois: ETC Publications, 1975.

This book is among the first concerned with both modern management principles and practices in education. The author builds a strong case for treating every knowledge worker as a manager. Although the book relies on clearly explained modern management principles and theories, it describes in clear language numerous examples of how to begin the management process in several areas of the knowledge industry (field of education).

_____**Foundations of Futurology in Education.** Homewood, Illinois: ETC Publications, 1973.

This is the first in a series of works published by ETC dealing with the future of education. It is designed to introduce educators to the thinking of futurists and to help them plan for the future rather than simply react to the present condition. The significance of futurists' thoughts and some of their basic tools of inquiry are treated as these are related to improving the educational effort. Writers such as Toffler, Shane, Cohen, Mitzel, and others are represented.

Instructional Objectives Exchange. **Attitude Toward School.** Revised Edition. Los Angeles, California: Instructional Objectives Exchange, 1972.

> This is a revised collection of criterion-referenced objectives and related measuring instruments for determining attitudes toward school (K-12). Both self-report and observational indicators are provided, and self-report measures include direct as well as inferential measures being those which are harder for a respondent to fake. Quality control and validation data are included.

_____**Measures of Self Concept K-12.** Revised Edition. Los Angeles, California: Instructional Objectives Exhange, 1972.

> Divided into primary, intermediate, and secondary levels, this collecton of attitude surveys focuses on the child's perception of himself. Desirable objectives precede each survey; interpretive explanations of the tests are also included. Observational indicators for measurement by someone other than the child are provided. (ED069681).

Johns, Roe L. et al., ed. **Dimensions of Educational Need.** Gainesville, Florida: National Educational Finance Project, 1969.

> The editors consider the problem of educational needs and the implications of educational need for school financing. Dimensions of need are defined in the following areas: early childhood, basic elementary education, secondary education. educational programs for exceptional children, culturally deprived children, vocational education, community junior college education, and adult and continuing education. Also included are a discussion of the extended school year and an abstract of the research design for the National Educational Finance Project. (ED036007).

Johnson, A.P., Ed.; McNamara, James F., Ed. **Planning Perspectives for Education.** MSS Information Corporation, New York, New York, 1975.

> This book presents a collection of previously published journal articles dealing with the theory, practice, and research of planning. The various readings were selected to stimulate thought and action in educational planning, rather than to present solutions to specific problems. The articles include Knowledge and Action: "A Guide to Planning Theory," by John Friedmann and Barclay Hudson; "Some Limits of Rational Man Organizational Theory," by Chris Argyris; "The Science of Muddling Through," by Charles Lindblom; "Mixed-Scanning: A 'Third' Approach to Decision-Making," by Amital Etzioni; "Goals and Goal-Setting," by Robert Young; "On the Concept of organizational Goal," by Herbert Simon; "Humanistic Planning," by Erich Fromm; "A Group Process Model for Problem Identification and Program Planning," by Andre Delbecq and Andrew Van de Ven; "Policy Sciences Perspectives on Implementation Processes," by Douglas Bunker; "Problems, Solutions, and Strategies: A Contribution to the Theory and Practice of Planning," by T. J. Cartwright; "Simulation, Mathematical Models, and Comprehensive City Planning," by Melville Branch; "Forecasting: From Conjectural Art toward Science," by Roy Amara and Gerald Salancik; "Model Bias in Social Action," by James March; and "If Planning is Everything, Maybe it's Nothing," by Aaron Woldavsky. (ED111113).

Jones, G. Brian et al. **Evaluation . . . A Training Module.** Washington, D.C.: The National Cluster Coordination Center, United States Office of Education, 1973.

> These training materials cover a wide range of topics, such as formulating a general evaluation approach, specifying product and process objectives, measuring outcomes, analyzing and synthesizing data, and using and reporting results. This module comes with an audio tape and 33 slides which introduce it. Tests and decision-making examples are included to measure understanding of the components of the module. Answer keys are provided. A simultaion exercise runs throughout the latter part of the module to illustrate the development steps.

Kaufman, Roger A.; Harsh, J. Richard. **Determining Educational Needs: An Overview.** Paper prepared for the Planned Leadership for Evaluative Development of Goals for Education (PLEDGE) Conference. San Dimas, California. 1969.

> This paper proposes that a formal, systematic process, supported by "hard" data, be utilized to identify and define the needs of learners and of society so that effective and efficient education may be designed, implemented, and evaluated. Three preliminary models for assessing educational needs are presented and exemplified by describing activities in three California unified school districts. Also included is a limited analysis of the steps an educational agency may take to identify and define criteria for relevant educational goals upon which an effective efficient educational program may be based. (ED039631).

_____**Educational System Planning.** Englewood Cliff, New Jersey: Prentice-Hall, Inc., 1972.

> This book presents concepts and tools for determining what things should be accomplished before program implementation is begun. The emphasis is on planning what to do rather than doing what has been planned. In distinguishing between planning and doing, this book offers practical, simple guidelines. It approaches every plan from the same point of view -- establish a proper identification of needs before anything else is considered. A blueprint of action based on accurate measurements eliminates premature conclusions, choice of solution before the problem has been properly identified, and jumping to conclusions that overlook important aspects deeply affecting the desired outcome.

_____**Educational Technology Vol. XVII Number 11. Issue on "Needs Assessment."** 1977.

> This issue is organized to give an array of theory and practice. First, as an overview, Witkin offers an article which summarizes the state-of-the-art in needs assessment. Next is English's discussion of the politics of needs assessment, from the perspective of a former school superintendent. Then, Sarthory supplies another practical managerial/implementer view. Following that is the perspective from close to the top of the mountain-from those involved in the writing and passing of laws-presented by Carron. Next, we move on to some models and applications.
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> Sweigert's efforts are important, and he summarizes the work in Atlanta and shares some highlights of the results to date. Following that is the multi-school

district appraisal of Melton, who gives experiences and some results from the West, South and East.

Roberts, Daubek and Johnston relate observations of the concept in the U.S. Army.

Bowser and Robinson offer some data and results from work in San Diego which shows what data might be collected in an operational school setting-secondary special education.

Higher education applications are presented by Murphy and Martin, who are just getting underway, and next is the discussion of Morgan and Feldman on what they did and what some of the major results turned out to be, again in a community college.

Rounding out this special issue is needs assessment from the perspective of instructional designers, presented by Dick and Carey. Finally, I present a possible taxonomy of needs assessments for consideration. This grew out of my concern about confusion in the field as to what was and what was not a needs assessment.

This is just an opening chapter in the study of Needs Assessment. If used correctly, and mindfully, needs assessment can result in more successful, practical and rewarding education for all of the partners: learners, educators and community members. The use, examination and improvement must continue.

Klein, Stephen P. et al. **Procedures for Needs Assessment Evaluation: A Symposium.** Los Angeles: University of California, May 1971.

Topics presented at the symposium and treated in these papers include "Choosing Needs for Needs Assessment," "Selecting Tests to Assess the Needs," "Making Better Decisions on Assessed Needs: Differentiated School Norms," and "Allocating Resources by Subject Areas." Also included is a list of 145 goals of elementary education from the Center for the Study of Evaluation, Elementary School Evaluation Kit. (ED055111).

LaBay, Michael J.; and Peckenpaugh, Donald H. **The Bracketing Technique: A Method for Defining Administrative Needs and Priorities.** Paper presented at American Educational Research Association Annual Meeting. Chicago, Illinois. April 1974.

Bracketing is defined as a procedure whereby individual decision-making team members sharpen their perceptions of organizational need prior to administrative action. Like the Delphi Technique, the procedure eliminates major detriments of group activity planning and includes sequential interrogations and feedback procedures. Unlike the Delphi Technique, respondents are not given descriptive indexes of group thinking prior to the definition of team-expressed organizational need. A review is given of how bracketing was used to advantage in defining administrative needs, priorities, and performance objectives for the Birmingham, Michigan Public Schools. (ED094460).

Lawrie, J.W.; and Boringer, Clayton W. "Training Needs Assessment and Training Program Evaluation." **Training and Development Journal.** November 1971.

This article cites seven steps to be followed for increasing the effectiveness of your training program.

League of California Cities. **Assessing Human Needs.** Sacramento, California. 1975.

Although aimed at 'city policy makers and planners,' this recent, detailed handbook covers the spectrum of needs assessment, resources identification, organizational implications, citizen participation, various methods for collecting information, and describes several California needs assessment projects, both public and private. All in all, a well balanced and useful document that can be used in expanding community education programs, particularly those that are closely associated with city and/or county government.

Lewy, A. **The Development, Evaluation and Implementation of Curriculum. IIEP Seminar Paper: 4.** International Inst. for Educ. Planning, Paris, France.

This paper presents some principles related to the process of curriculum development, evaluation, and implementation. It introduces the concepts of balance and relevance as criteria for judging the adequacy of an educational programmer and presents a model for generating and selecting educational objectives. It then describes two functions of curriculum evaluation: The modification of curriculum material and the specification of conditions under which the programmer should be expected to function well. Finally, it describes some problems related to the evaluation of programmer implementation. (ED133852).

Londoner, Carrol. **A Diagnostic Procedural Model for Identifying Real Educational Needs.** Bloomington, Indiana. 1967.

The Bloomington Hospital in Bloomington, Indiana, needed a more effective task group within the hospitals institutional framework. This study reports the results of a seven week period in which the investigator used the Bales Interaction Analysis Sheet and a form for evaluating group structure to observe department heads in their weekly conferences. The investigator's recommendations, a sample questionnaire, and the diagnostic instruments used are included in the report. (ED037675).

Mager, Robert. **Measuring Instructional Intent or Got A Match?** Belmore, California: Lear Siegler, Inc./Fearon Publishers, 1973.

This book shows how to select or create test items that match the intent of your objectives. The author describes a procedure and offers examples and practice that will help to make the critical match between objectives and test items by which achievement of objectives can be measured. The book includes an Objective/Item Checklist and flowchart to use in checking test items. Using it one can take the first and fundamental step in determining the success of instruction.

_____ **Preparing Instructional Objectives.** Belmont, California: Fearon Publishers, 1975.

This book demonstrates how to define teaching objectives, how to state them clearly and how to describe criteria by which to measure success.

Margolis, Fredrich H. **Training by Objectives: A Participant-Oriented Appraoch.** Washington, D.C.: Behavioral Science Center, Sterling Institute, 1970.

This 36-page monograph presents a logical progression of the steps for training. A series of work sheets are included which can be used in planning the various aspects of the training program including the means for developing specific instructional objectives. The monograph was prepared for the Office of Economic Opportunity. (ED047234).

McAshan, H.H.; and Harrow, Anita. **Comprehensive Educational Planning, Implementation and Evaluation: A Systems Model for Educational Accountability.** New York, New York: Carlton Press, Inc. 1975.

This text, based upon four years of experience and study of systems analysis and the use of performance objectives, includes discussions of: systems concepts; needs assessment planning; development of operational plans through systems analysis; strategy analysis; program implementation; context, process and product evaluation; recycling for program revision; and how to relate the systems developed to Planning, Programming, Budgeting, Evaluation Systems (PPBES). The book explores the step-by-step approach to each process and is a "how to do it" text.

McCallon, Earl L.; and McCray, Emajean. **Designing and Using Questionnaires.** Austin, Texas: Learning Concepts, 1975.

This booklet is designed to aid the resarcher in designing a questionnaire suited for his particular purposes, complete with detailed steps on constructing the parts in a way which will assure good responses. The advantages and disadvantages of the questionnaire are discussed, along with such characteristics of a good questionnaire as attractiveness, length, topic, ordering of questions, and cover letter.

______**Planning and Conducting Interviews.** Austin, Texas: Learning Concepts 1975.

The interview is very useful as a research method for obtaining certain kinds of information from a set of correspondents. Competence in the techniques of interviewing requires experience and a basic knowledge of the theory. This book presents the different types of interview, their associated advantages and disadvantages, and the necessity for training the interviewer. A guide for planning and conducting an interview is presented as an aid for the researcher or the evaluator.

McLure, William P.; and Pence, Audra May. **Early Childhood and Basic Elementary and Secondary Education: Needs, Programs, Demands, Costs.** Urbana: University of Illinois, 1970.

In presenting the results of study 1, National Educational Finance Project, the authors give a cost analysis of operating expenses for a sample of school districts and Bureau of Indian Affairs for the regular scholastic year 1968-69 and the summer of 1969. Urban, suburban, and independent districts are included. Also included is a projection of needs for 1980 in terms of capital outlay necessary to operate effective educational programs. The report gives school population projections for 1970 and 1980 and includes 23 tables and four appendixes. (ED054842).

Miller, Donald R. **Models for Planning: Analysis of Literature and Selected Bibliography. Series No. 5** Eugene, Oregon: University of Oregon, 1970.

This review analyzes current research trends in the application of planning models to broad educational systems. Planning models reviewed include systems approach models, simulation models, operational gaming, linear programming, Markov chain analysis, dynamic programming and queing techniques. An extensive bibliography is included. (ED043114).

Murphy, Joseph H. "Determining Development Needs With Supervisory Conferences." **Training and Development Journal.** June 1972, 2-6.

This is a report on a series of structured supervisory meetings to assess organization and personnel weaknesses.

Nixon, George. **People, Evaluation and Achievement.** Houston, Texas: Gulf Publishing Company, 1973.

The author explores in depth the role and function of performance evaluation. The dollars expended in training requires answers to two questions: How are we doing? and How do we Know?

Peterson, R.; and Uhl, N., Educational Testing Service. **Institutional Goals Inventory.** ETS College and University Programs, Princeton, New Jersey. 1972.

The Institutional Goals Inventory will aid in defining educational goals, establishing priorities among those goals, and giving direction to an institution's present and future planning. IGI should be especially useful to institutions in planning and evaluation. It is administered to all segments of the college community and the larger community in which the institution is situated.

Popham, W. James. **Objectives-Based Management Strategies for Large Educational Systems.** Paper presented at the American Educational Research Association Annual Meeting, Chicago, Illinois. 1972.

This speech analyzes the critical ingredients of an objective-based management system for: (1) **goal determination**, decisions regarding the direction of the educational enterprise; (2) **progress monitoring**, the formulative evaluation of the system's enroute success in attaining its goals; and (3) **output appraisal**, the summative evaluation of the system's effectiveness. Several empirical studies conducted at the University of Los Angeles Instructional Objectives Exchange are related to these three phases of large-scale educational management. (ED062712).

Provus, Malcolm. **Discrepancy Evaluation for Educational Program Improvement and Assessment.** Berkeley, California: McCutchan Publishing Corporation, 1971.

This book contains the critical contributions of several evaluation specialists and directors of educational research efforts throughout the country. A Discrepancy Evaluation Model is presented which calls into question the exclusion of an experimental design as an evaluative program. The model incorporates both the case study method and experimental design, as well as other disciplined techniques, and presumes values not statistics to be the source of evaluations. Charts, graphs, flow charts and form examples are included.

Tempkin, Sanford. **An Evaluation of Comprehensive Planning with an Annotated Bibliography**. Philadelphia, Pennsylvania: Research for Better Schools, Incorporated, September 1970.

> The ideas and methods in contemporary literature on comprehensive planning are briefly treated in the first section of this document. In the second, a lengthy annotated bibliography on current planning literature, categorized according to topic-process, system-wide planning, system characteristics, and politics, community, and communication is provided. The bibliography is indexed by author and subject.

U. S. Congress. House General Subcommittee on Education, Committee on Education and Labor. **Needs of Elementary and Secondary Education: A Compendium and Policy Papers.** House of Representatives, 91st Congress, 1st Session. 1970.

> The first section of this compendium consists of essays prepared at the invitation of the General Subcommittee on Education by men considered to represent nearly every shade of opinion on education. These people were asked to predict the most compelling issues of the future and to suggest possible alternatives for those issues. The second section of the anthology is composed of formal statements submitted by witnesses testifying at subcommittee hearings. The essays focus on a wide range of educational subjects, including finance, construction, research, development, accountability, systems analysis, private schools, etc. (ED042868).

Urban Strategy Center, Community and Regional Development Group. **Blueprint for the Possible: A Citizens' Action Program for Better Schools.** Washington, D.C.: Chamber of Commerce of the United States, 1973.

> Beginning with a brief discussion of the great American challenge -- a quality education equally available to all -- and the conflicting necessity to meet this challenge with ever-dwindling resources, this booklet presents a blueprint for action to achieve accountability **and** the great challenge. The keys are: broad community involvement, careful goal setting, and educational auditing. Specific suggestions are offered, along with some facts about American education in 1971-1972.

Vinarskai, Eugene T., and Laird, Nicola R. **Aids to Integrating Career Education Into the Educational Program. Oregon ASCD Curriculum Bulleting, Vol. 30, No. 330.** Oregon Association for Supervision and Curriculum Development, Salem: Oregon State Board of Education, Salem, Oregon. 1976.

> The bulletin contains curriculum materials which emphasize career awareness, exploration, and preparation level programs; career guidance and counseling; and personnel development. Each section provides background information generally supplied by the Oregon Department of Education. This basic information is followed by examples of materials presented by local school districts. The seven sections deal with: (1) building career education into the curriculum; (2) career awareness (an overview, student outcomes with grade level activities, and administration and staff development); (3) career exploration (State definition, examples of cluster orientation activities, cluster exploration, exploratory work experience, career decision making, and student outcomes.) (4) career preparation (the cluster concept with information and

objectives for specific job clusters, classification of career clusters, and integration of the career experience); (5) occupational specialization; (6) career guidance and counseling (philosophy, needs assessment, and grade level objectives); and (7) summary of Oregon's personnel development methods (cadre training, development centers, preservice and inservice programs, and sample training materials). A list of 20 references, coded as to source and availability on a loan or permanent basis, is included. (ED121986).

Westinghouse Learning Corporation Educational Consulting Staff. **Westinghouse Learning Corporation: Educational Needs Assessment.** Westinghouse Learning Corporation, Iowa City, Iowa. 1973.

The Educational Needs Asessment system is designed to collect and rank information obtained from educators, students, and community members concerning 50 goals common to school districts. A pre-printed document listing the goals is available for distribution to the selected participants. Each participant is asked to respond to each goal statement in terms of how important the goal is deemed to be, whether attainment of the goal is the responsibility of the school district, and whether the goal is already being attained. The reporting service ranks each of the goals in terms of importance, responsibility, and attainment by respondent group. A Q value is also reported which is determined by the formula I (importance) x R (responsibility)/A (attainment). The Q Value given for each goal statement identifies those goals which are the responsibility of the school and ranked important by the respondents - but perceived by the respondents as not being attained by the school. The Q value allows district administrators to obtain yet another indicator in the interpretative process if prioritizing the goals requiring immediate implementive action. An option is offered to school districts to print their own goal statements in the booklets and still take advantage of receiving the 8 different ranked reports.

Witkin, Belle Ruth. **An Analysis of Needs Assessment Techniques for Educational Planning at State, Intermediate, and District Levels.** Hayward, California: Alameda County Superintendent of Schools, 1975.

Only in the last five years or so has needs assessment achieved national prominence, though the concept has been around for a long time. Consequently, "few models or instruments have been extensively field tested for validity and reliability," according to Witkin. And the literature on needs assessment has likewise been somewhat limited. Indeed, this volume is one of the few attempting to deal comprehensively with this subject. It includes a review of the state of the art, descriptions of the most widely available and representative models, and tips on planning and implementing a needs assessment.

Witkin identifies emerging trends in needs assessment that are predicted on the systematic collection of opinion "from many different groups inside and outside of education." She predicts that active community involvement will continue and increase. Although most current assessment models are oriented toward the present, "futurology" techniques entail the development of "scenarios for alternative futures," projecting needs in a much longer time frame. The emergence of a new technology incorporating computer analyses means that "real," as opposed to "apparent," needs of a system will be easier to identify.

Very little is known about the impact of needs assessment on education, according to Witkin. She cautions school districts against putitng "all your school and community energy 'eggs' in the needs assessment basket." Assessment is only a first step prior to the planning and implementation of solutions. (ED108370).

_____**Communication Strategies in Public Policy Decision Making: An Analysis of Processes in Major Needs Assessment Models from a Systems Point of View.** Paper presented at the Annual Meeting of the International Communication Association (Chicago, Illinois, April 1975).

The role of communication processes and strategies in needs assessment models and changes that have taken place in communication networks as a concomitant in school-community interaction is discussed in this paper. Federal and state legislatures and local communities have required that school districts document their needs and provide a rationale for the ways in which they spend their funds. As a consequence, a number of needs assessment models and data gathering instruments and procedures have emerged. The purpose of these models is to gather data for decision making, specifically for setting priorities for allocation of funds and for short - and long-range planning. The success of the needs assessment often depends almost entirely upon the effectiveness of the communication processes. Although there have been many published reports of needs assessments, including descriptions of methods used and results obtained, there have been very few critical or evaluative studies. (ED120848).

Worthen, Blane R., and Sanders, James R. **Educational Evaluation: Theory and Practice.** Worthington, Ohio: Charles A. Jones Publishing Company, 1973.

This book is designed as a basic text for courses on educational evaluation, as well as a basic or supplemental book for teacher education, curriculum, or administration courses where efforts are made to teach practitioners how to assess the effectiveness of their educational programs. The emphasis is on providing tools for problem solving and chapters are devoted to evaluation as a discipline, with definitions and overviews; frameworks for planning evaluation studies, including judgmental strategies, decision-making strategies, and decision-objective strategies; considerations in planning evaluation studies, with an emphasis on objectives; and a projection for the future of evaluation. References and indexes are included.

Yingling, Karl W. **The Financial Phase of Long Range Planning for Public Schools -- Presenting a Method for Projection.** Butler County Pennsylvania: Butler County School Board, 1968.

This document presents a method for estimating future financial needs and resources in a long-range plan for school districts. The author discusses the following: (1) required assumptions for a ten-year projection, (2) specific advice on computing the necessary elements, (3) difficulties associated with each element, (4) proposed solutions, and (5) the need for evaluating projected and actual income and costs at the close of each fiscal year. An appendix includes sample projection tables and graphs. (ED020563).

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Identification and Selection of Products

Alkin, Marvin C.; Wingard, Joseph. **User Oriented Product Evaluation.** California University, Los Angeles, Graduate School of Education. Paper presented at the American Psychological Association Symposium on Evaluation of Instructional Systems. (Honolulu, Hawaii, September 3, 1972).

> While the educational product development field has expanded tremendously over the last 15 years, there is a paucity of conveniently assembled and readily interpretable information that would enable users to make accurate and informaed evaluations of different, but comparable, instructional products. Minimum types of validation data which should be reported to users to assist them in their selections include those which delineate the instructional context of a product: the product's purposes, target population, effectiveness, and efficiency of installation and management. The lack of user-oriented validation data on instructional products is partially related to the myopia of product developers and evaluators (who view the development process as the concern of decision makers who are not necessarily users), is partially a function of commercial publishers' priorities, and is partially due to a lack of consumer demand. (ED067899).

Armstrong, Jenny R.; Curtis, John; Dobbard, Daniel; Latham, G.; McLaughlin, John A.; and Swassing, Ray. **A Sourcebook for the Evaluation of Instructional Materials and Media: Levels I through V.** 1973. Special Education IMC/RMC Network, Arlington, Va.

> Level I, "A Generalized Model." Level II, Teacher Judgments: Part A. Measuring Teacher Response to Instructional Materials; Part B. Teacher Evaluation of Instructional Materials; Level III, Expert Judgements: Part A. Procedures for the Identification of Exemplary Materials Criteria; Part B. Appraisal of Instructional Materials and Media by Experts; Level IV, Effects on Learners: Part B. Methodologies for the Evaluation of Instructional Materials and Media: Assessing Impact on Learners; Level V, Selecting Materials and Media: Part A. Procedures for the Selection of Instructional Materials at Various Stages of the Evaluative Process; Part B. Selecting Instructional Materials. (ED107050).

Association for Educational Communications and Technology. **Selecting Media for Learning: Readings from Audiovisual Instruction.** Washington, D.C. 1974.

> Thirty-one articles (reprinted from Audiovisual Instruction, (1971-73), presented under the following headings: (1) Selection Models and Some Tested Selection Procedures; (2) Guidelines and Systems for Evaluating Media Materials; (3) Selection in an Instructional Development Context; (4) Production, Marketing, Utilization.

Baker, Eva L.; Alkin, Marvin C. "ERIC/AVCR Annual Review Paper: Formative Evaluation of Instructional Development." **AV Communiction Review.** Volume 21, Number 4. pp 389-418. Winter 1973.

> The inadequacy and/or lack of evaluation procedures in the development of instructional products has been well documented. To help remedy this situation, the authors discuss and analyze research and theory in the field of formative evaluation applied to instructional development.

Behrman, Edward H.; Evans, William. **Evaluating the Effectiveness of Administrative Training Products.** 21p: Paper presented at the Annual Meeting of the American Educational Research Association (Washington, D.C. March 30-April 3, 1975).

> This paper clarifies the distinction between evaluating the effectiveness of student curriculum products and evaluating the effectiveness of administrative training products. Four product evaluation designs are described and critiqued along eight interrelated dimensions: the definition of product effectiveness; criterion measures of effectiveness; the determination of users' pre-treatment levels of ability on the criterion; types of comparisons: sample size and comprehensiveness; the determination of acceptable criterion performance; confounding variables; and intervening variables. Finally, a practical yet legitimate strategy for measuring effectiveness of administrative training products is proposed. (ED109169).

Berkey, Arthur L. "Selecting Teaching Methods and Materials." **Agriculture Magazine.** Volume 47, Number 9, pp 199-200. March 1975.

> Rational selection of educational resources in a necessary step to effective teaching. Four criteria to consider in selection are the instructional objectives to be achieved by students, the resources available for use, the characteristics of students to be taught, and the teacher's ability and preferences.

Borman, Christopher; Stenning, Walter F. **A Report of Career Education Material Effectiveness as Judged by Teachers. Technical Report No. 2.** Texas Education Agency, Austin, Texas. July 6, 1973, 200 p.

> Thirty-two master teachers, working in grade-level and instructional area groups and using an evaluation instrument developed by a university center for career development and occupational preparation, rated 66 sets of career education materials by 15 criteria, such as organization; clarity of objectives; appropriateness to grade level; and organization, clarity, and appropriateness of classroom activities. Three criteria relate to the necessity and possibility of modification of the materials for useability. An annotated list of the materials is appended; the largest portion of the document is devoted to tables representing the ratings of each set of materials by each set of criteria. A brief summary of the findings reveals that many of the materials were rated as exellent, although only 15 sets were judged to be organized to fit specifically the intended grade levels. Half the materials need modification before use, because of ethnic or socioeconomic differences in particular school districts. The teachers reported that 45 sets of materials suggested reasonable classroom activities. The evaluation is still in process, and 55 sets of materials not yet evaluated are appended, as is the four-page evaluation form. (ED094193).

Eash, Maurice J. **Developing An Instrument for the Assessment of Instructional Materials (Form IV).** City University of New York, New York. Hunter College. Paper presented at the annual meeting of the American Educational Research Association, Minneapolis, Minnesota, March 1970, 37p.

This instrument is designed to provide data on the characteristics of the instructional design of classroom materials. Data is gathered on four constructs: objectives, organization of the material (scope and sequence), methodology, and evaluation. Questions elicit a mixture of yes-no, check list, and summary rating scale answers with open ended responses permitted where an exception to the listed approaches is encountered. The rater progresses through an atomistic analysis of the material to a numerical summary rating of the construct. In this study twenty-five graduate students rated two instructional packages, a reading package and a science package. Ratings were done individually and by groups. Individual responses showed agreement in 56 of 64 responses. Some of the limitations of the questions and the few disparities between individual and team evaluations are discussed. Inter-rater reliability scores both for each of the ratings on the constructs and the overall score were greather than .9. Inter-item reliability estimates were: objectives .38, organization of material .37, methodology .77, evaluation .99, and overall .55. A follow-up study with teachers after they have assessed materials with the instrument is suggested. Finally, general issues in instructional design are discussed. The instrument and a comprehensive glossary are included. (ED041947).

"Evaluating Instructional Materials." Audiovisual Instruction, Volume 17, 12-13, Dec. 1972.

A comprehensive system for discerning the instructional design of print and non-print educational products.

Educational Products Information Exchange. **EPIE Career Education Set Volume 1 & 2.** New York, New York.

The two volumes which comprise this EPIE Career Education S*E*T* (**S**election and **E**valuation **T**ools) are the result of a nine-month study, sponsored by the National Institute of Education, to search out and prescreen for inclusion all available career education instructional materials. The purpose is to provide schools - particularly those presently or soon to be involved in career education programs - with the most recent and authoritative information needed for the evaluation and successful selection of instructional materials. Volume 2 provides descriptions of some 700 career education materials. Readers will find that Volume 1 "How To Select and Evaluate Instructional Materials," not only contains information to assist them in purchasing career education materials, but serves as a timeless handbook for educators everywhere who are concerned with improving the quality of the materials with which children spend so much of their time.

Chapter 1 of this volume, "Career Education In Your School: How To Select Materials That Fit," provides a device by which teachers and administrators can pinpoint their schools' position on career education and the procedures for materials selection. The chapter also shows how to measure the depth of the career education concepts presented within a framework of the instructional design of materials under consideration, and answers questions like: "Has the publisher specified learning objectives?" If so, "Which elements of career education are stressed?" If not, "Can objectives be written for this material?" Similar questions may be asked of the teaching/learning activities (methods), and evaluation techniques provided, suggested, or ignored by the publisher.

______ **A Training Program in Analyzing Instructional Materials: General Prospectus.** EPIE Institute, New York New York. 1976.

Description of, and rationale for, EPIE's instructional materials training program which is based on the use of EPIEform A.

To point out the difficulty of selecting instructional materials from an enormous market without training. To help in dealing with producers and salespersons, in describing one's needs to them and in interpreting their descriptions and claims. To increse one's "literacy" in using not only descriptions of instructional materials made on the basis of the same system, but also ones based on another sort of appraisal.

Eraut, Michael; Goad, Len; and Smith, George. **"Scheme for the Analysis of Curriculum Materials."** pp 93-99 from **Handbook for the Analysis of Curriculum Materials,** Center for Educational Technology, University of Sussex, England, 1974.

Series of items to be incorporated in analysis of instructional materials including: (1) physical description of materials; (2) author's rationale and credentials; (3) target audience; (4) description of objectives, content, methodology, and assessment procedures; (5) structure of materials, including congruency of objectives, content, and assessment procedures; (6) considerations for use of materials within specific curriculum; (7) analysis of evidence of developmental testing of materials.

To provide a comprehensive instrument for analyzing instructional materials and determining their fit with existing curriculum.

Far West Laboratory for Educational Research and Development. **Development and Evaluation of the Sourcebook of Training Products in Instructional Planning and Management.** Far West Series in Instructional Planning. National Institute of Education (DHEW), Washington, D.C., 15p, January 1975.

Providing a history of the development and evaluation, this report discusses an information product designed to provide useful information to those responsible for staff development. The sourcebook purpose is to increase awareness of the kinds of products that are available for training in instructional planning and management, and to provide sufficient information to permit product screening. An overview including review guidelines, descriptions of 15 program packages, and an annotated list of 27 supplementary training resources composed of three selections of the book. The product evaluation is based on expert opinion and is included in this report. (ED106975).

George Washington University, Washington, D.C. Proceedings of Conference for the Evaluation of Instructional Materials. Washington, D.C., April 5-6, 1968.

Conference participants, who are members in the 14 federally funded Instructional Materials Children-Educational Resources Information Center, present papers on instructional materials. George M. Olshin discusses the challenge and opportunity of evaluation. Richard A. Dershimer speaks on evaluation and decision making, and Terry Denny presents the Educational Products Information Exchange approach to evaluation. Gary Adamson describes the Educational Modulation Center concept, while Floyd G. Hudson includes sample analysis cards in his talk on evaluation. Evaluation procedures in the Montgomery County Schools (Maryland) are discussed by Richard L. Darling; industry's role in evaluation is investigated by Morris Kaplan, who focuses on the Consumers Union, and by David R. Dorsett of Creative Playthings. (ED027657).

Halasa, Ofelia. "The Interdependency of Product and Process Assessment in Educational Evaluation." **Educational Technology.** Vol. 17 (3), pp 55-57, March 1977.

This article presents a limited segment of an emerging trend-focusing on assessment of both product and process objectives as opposed to assessment of one or the other only - in the evaluation strategies of an urban school system. The interdependency between product and process assessments (objectives) is so obvious as to be easily overlooked.

Hess, Robert J.; Wright, William J. **Evaluation Strategies as a Function of Product Development Stages.** Central Midwestern Regional Educational Laboratory, St. Ann, Missouri. Paper presented at the American Educational Research Association Convention (April 1972, Chicago, Illinois), 30p.

There are issues in evaluation and stages of product development that demand the use of experimental or quasi-experimental designs. To counteract criticism of evaluation efforts, an approach to the examination of the multiple issues involved in curriculum product evaluation across the usual developmental cycle of educational products was developed. Curriculum products typically move through a developmental sequence comprised of five stages: Initial State, Hot House — the initial tryout of a prototype product, pilot test, field test, and public diffusion. Each stage represents a milestone in the life of a product. In the course of evaluation, various audiences are acquired: the sponsor, the institution, the developer, consumer representatives, and advisors. There are five major dimensions of a comprehensive evaluation of curriculum products: Desirability/Feasibility, (2) Management/Procedural Cost, Product worth, Usability, and termination of a program concern statement and fulfillment of objectives, establishing a rationale for the use of particular measuring instruments, determination of whether or not different effects result from alternative procedures. When the product enters the diffusion stage, formative evaluation is ended and summative evaluation ought to begin. It is pointed out that true summative evaluation is consumer protection and is a three tiered process operating wherein: (1) The product developer establishes the criteria; (2) Dome agency of the federal government examines the product; and (3) Local education agencies research the products. (ED064384).

Johnston, Thomas J. "Program and Product Evaluation from a Domain-Referenced Viewpoint." **Educational Technology.** Volume 14, Number 8, pp 43-48, June 1974.

Article focuses attention on some of the more important factors to be considered in evaluating educational products and programs within the domain-referenced framework.

Joint Committee of the National Education Association and the Association of American Publishers. **Selecting Instructional Materials for Purchase: Procedural Guidelines.** National Education Association, Washington, D.C. 1972.

> Five sections dealing with the process of selection for purchase, and the steps educators should take to bring the process to a conclusion. Topics covered include: (1) changing conditions affecting selection; (2) legal and administrative setting for selection; (3) organizing for selection; (4) the selection process; (5) guidelines for expenditures.
>
> To chart procedures for the selection and purchase of instructional materials and related services for the public schools of the United States.

Krueck, Thomas G.; Denton, William T. **Product Evaluation at the Career Development Center. 1971-72 Final Report.** Dallas Independent School District, Dallas, Texas. July 1972. 18p.

> The Skyline Career Development Center was conceived as an opportunity for upper secondary students in the Dallas school district to accomplish educational goals beyond the conventional curriculum, especially in the area of career education. A flexible curriculum was developed to offer courses not available elsewhere and to enable students to perform at varying levels, terminating at different points in any of the courses. A new report card was designed to report student progress based on individual achievement, allowing a student to compare his growth with his own past performance. Evaluation of the Center during its first year was limited to collecting information on teacher, student, and parent attitudes about various aspects of the program. Attitudes concerning the new forms for reporting student progress showed that the new system was generally well-received by students and parents but that teachers were still opposed to the process, although not the concept. No final study of student than three-fourths of the students indicated positive feelings toward classes, career values, and the Center. However, most of the educational clusters had attrition rates higher than 50 percent of the enrollment. Study findings are detailed in the report, with recommendations for improvements in the Center's programs. (ED075574).

Lawson, Tom E. "Formative Instructional Product Evaluation." **Educational Technology.** Volume 13, Number 5, pp 42-44, May 1973.

> A presentation of a conceptual strategy for ascertaining data as to the sources of information utilized concerning the product and categories of formative evaluation activities.

Leles, Sam, and Cruse, Robert J. "Improving Education Evaluations by Appropriate Use of Knowledge. Product and Performance Learning." **Educational Technology.** Volume 16, Number 1, pp 41-43, January 1976.

> A description of a conceptual model by which learnings can be differentiated into different forms. It is further contended that schools at all levels engage in tasks that result in learnings whose form is not solely restricted to cognitive growth or knowledge growth.

McLaughlin, John A. and Trlica, Jack S. "Teacher Evaluation of Instructional Materials." **Educational Technology.** Volume 16, Number 3, pp 51-54, March 1976.

> This article delineates a method for gathering classroom teacher evaluations of instructional materials: (1) the need to include teachers in the process of materials evaluation; (2) the selection of items for inclusion in the instrument; and (3) the strategy to be utilized in collecting, analyzing and disseminating the information.

McMorris, Robert F. "Product Evaluation: A Public Speaking Film." **Studies in Educational Evaluation.** Volume 1, Number 3, pp 147-164. Winter 1975.

> An attempt is made to provide more general approaches for evaluating products. These approaches were used to help organize not only the methods and results for drama film evaluation but also a discussion concerning evaluation more generally and the film evaluation more particularly.

Morgan, Robert L. **An Approach to Evaluation: A Model for Evaluating the North Carolina Exemplary Program.** North Carolina State University, Raleigh, North Carolina. Center for Occupational Education. Paper presented at the National Institute on Exemplary Projects in Vocational Education, July 21, 1970, 26p.

> Program evaluation is a difficult task, but it must be attempted in order to provide the decision-makers with a basis on which to judge the effectiveness of the program and on which to recommend improvements. Realizing that difficulties may exist, such as in the unique nature of a specific program or in the lack of adequate measurements of effectiveness, it was felt that a general evaluation model should be developed. The Apex model was developed to evaluate a program in a rural, integrated population of 1,900 students in four schools, Grades 1-12. The model was adapted from a previously developed model and incorporates process evaluation, product evaluation, and a feedback system. It also makes use of the post-hoc method and a control group. This model was useful in judging the effectiveness of the Apex project in relation to specific project objectives and in relation to the intent of the legislation which funded the project. It is believed that certain aspects of this model can be used in developing the needed general model of evaluation. (ED042910).

Morrissett, Irving. "CIN (Curriculum Information Network) First Report Evaluation of Curriculum Materials." **Social Education.** Volume 37, Number 7, pp 665-668, November 1973.

> An analysis is given of a survey appeal made in the November 1972 issue of Social Education in which readers were asked to supply evaluative information on social studies materials they were using.

National Institute of Education. **Catalog of NIE Education Products, Volume 1 and Volume 2.** Administrative Resources Division, Washington, D.C. 1975.

> These volumes contain comprehensive descriptions of 660 products developed with federal funds over the last ten years.
>
> Areas include aesthetic education; basic skills; early child education; career education; educational equity; evaluation, measurement, and needs assess-

ment; finance, productivity, and management; guidance and counseling; information utilization and dissemination; postsecondary education, social education/social science; and teacher education.

The primary purposes of the **Catalog** are twofold: (1) to inform educational practitioners, developers, policymakers, and publishers about a wide range of school-oriented products developed with Federal R & D funds and (2) to provide information to help potential consumers make decisions concerning the most appropriate education products for their needs."

Penta, F. B.; Fleming, G. A.; and Penta, M. A. "A Guide to the Appraisal Instructional Materials." **Educational Technology.** Englewood Cliffs, New Jersey. December 1974.

Description of criteria and procedures for the appraisal of instructional materials developed by the Learning Resource Center of the Medical University of South Carolina. More than 100 products were appraised using these criteria and procedures. Three major categories in which to make judgments are: (1) content quality: accuracy, appropriateness, scope, organization, and completeness of content; (2) educational quality: use of objectives, evaluation components, guides, student involvement, pacing, reinforcement, and quality of instructional design; (3) technical quality: sound (if applicable), visuals, color, editing, durability, and narration.

Reviewers were to respond "yes" or "no" or "good" or "poor" to statements in each of the categories and assign an overall rating of "poor," "fair," or "excellent." Reviewers comments are solicited as well.

To present selectors with a set of procedures and criteria applicable to the selection of instructional materials.

Poole, Richard L. "Tentative. Intermediate Criteria for the Selection of Instructional Packages." **Journal of Educational Technology Systems,** Volume 3, Number 2, pp 139-154, February 1974.

Theme of the article is to identify and illustrate seven criteria for selection of instruction materials.

Popham, W. James **A Training Program for Developers and Evaluators of Educational Products. Final Report.** California University, Los Angeles, California. Center for the Study of Evaluation. p137, December 1970.

This program is designed to train individuals to develop and evaluate educational products by means of a consortium composed of agencies and individuals in Southern California with expertise in one or more aspects of product development and product evaluation. The trainees would include degree and non-degree candidates, and the program would provide training for individuals wishing to promote training for a staff sub-group. By focusing upon the training of outstandingly competent product developers and product evaluators, the agencies collaborating to design the training program believed that they could best contribute to the improvement of the country's schools. The principal site would be a training laboratory located near the UCLA campus, and the basic year-round training would be supplemented by specialized institutes and short courses. The 13 agencies in the consortium are identified and described. The various programs (one year, short term, graduate degree-related, and master of arts) are outlined, together with the instructional objectives and measurement procedures. Additional material includes vitae of the program staff and copies of correspondence concerning the development of the program. (ED052168).

Proger, Barton P; Carfioli, Joseph; and Kalapos, Robert L. **A Neglected Area of Accountability: The Failure of Instructional Materials Evaluation and a Solution.** Pennsylvania Resources and Information Center for Special Education (PRISE) King of Prussia, Pennsylvania. 1973.

Gives authors' analysis of the fallacy of evaluating instructional techniques as a total package: the effects of the various components (teacher effectiveness, environment, materials) are not considered individually, thus a "global evaluation" is produced. Such an evaluation cannot be easily applied to typical classroom situation, where these variables must be taken into account.

Focuses on instructional materials to illustrate how a single component of an instructional approach can be separately evaluated within a total package.

Discusses present flaws in materials evaluation, and presents a simulation model (SIMEM)as an example of a more effective evaluation technique.

To point out flaws in current materials-evaluation practices and to propose that a simulation model (having teachers evaluate materials in an out-of-classroom setting, taking into account certain specific criteria) would provide more accurate and useful evaluations of materials.

SWRL Educational Research and Development. **SWRL Instructional Product Selection Kit.** Los Alamitos, California, 1975.

Set of resources for use in conducting workshops or inservice training in selection of instructional materials.

Familiarization with product-selection considerations by involving the participants in actual product-selection activities.

To prepare product-selectors: "(s) To identify in instructional programs and materials the presence or absence of necessary elements of a complete instructional product, (2) to determine the degree to which a given product meets the selection considerations presented in the kit, (3) to compare competing instructional products according to these selection considerations, and (4) to use these considerations for product selection decisions in a variety of situations."

Smith, Nick L. **Pre-Product Evaluation: What To Do While Waiting for the Product, Research, Evaluation, and Development Paper Series No. 6.** Northwest Regional Educational Laboratory, Office of Research and Evaluation Service, Portland, Oregon. 19 pp, November 1974.

Occasionally novice evaluators of educational products do not recognize the full scope of their jobs and may feel that there isn't much to do because a product prototype won't be ready for some time. This brief dialogue attempts to illustrate that there are many things an evaluator can do before he or she sees a product--perhaps even too much. (ED137409).

Starr, Marion; Magnuson, Carolyn. **Missouri Career Education Training Workshop Handbook. Field Test Edition.** Missouri State Department of Education, Division of Career and Adult Education, Jefferson City, Missouri. 227p. 1975.

Educators from throughout the State of Missouri contributed to the training workshop handbook which presents guidelines for implementing career education programs. Six sections include: (1) Missouri Career Education Today and Tomorrow, discussing current and future trends, and presenting a conceptual framework; (2) Getting Started, refers to the user to the booklet "Guide for Implementing Career Education," which is not included in the document; (3) Determining Needs, explaining the needs assessment process; (4) Program Direction, discussing the development of goals and objectives, guidelines for their writing, and their inclusion in evaluation procedures; (5) From Plan to Action, examining the organization of teaching strategies for the classroom in terms of process and presenting (organized by grade levels K-12) specific learning activities and ideas related to subject matter areas; (6) Resource Utilization, presenting guidelines for selecting and utilizing human and material resources. Appendixes are organized according to related chapter and include: a glossary; needs and resource assessment formats, table of random numbers, a list of available needs assessment instruments, data sheet forms; materials discussing goals, behaviors, and behavioral objectives; sample instructional materials, teaching aids, and forms; and a list of sources of free education materials, organized by occupational areas. (ED120455).

Talmage, Harriet. "Evaluation of Local School/Community Programs: A Transactional Evaluation Approach." **Journal of Research and Development in Education.** Volume 8, Number 3, pp32-41, spring 1975.

Program evaluation, models, program development, recycling. Author delineated a specific method of evaluation based on transactional analysis - one that is applicable to conflict situations.

Webster, William J. **The Evaluation of Instructional Materials.** Stanford University, California. ERIC Clearinghouse Information Resources. National Institute of Education (DHEW), Washington, D.C. 1976.

A review of four models of instructional materials evaluation is presented to synthesize the state of the art of such evaluation. A model for evaluation is then developed which includes the following elements: (1) context evaluation and needs assessment, (2) input evaluation, (3) determination of resources, (4) program planning, (5) program implementation, and (6) applied research. The use of the model to evaluate the Targeted Achievement in Reading Program (TARP) in the Dallas Independent School District is discussed to show its application in a large urban school district. An extensive annotated bibliography on evaluation of instructional materials is included. (ED131861).

Wehle, Fred, Jr. **How to Evaluate Competitive Products.** Paper presented at Council of Educational Planners Annual Conference (47th Oklahoma City, Oklahoma), 11p, October 1970.

This speech discusses the evaluation and selection of competitive products for schools, and recommends that user specifications be written to include user requirements. The author maintains that product evaluation would be easier if specifications writers would use more performance tests to interpret the user requirements and anticipated environmental forces. (ED044800).

Worner, Roger B. "Evaluating Instructional Programs." **National Association of Secondary School Principals Bulletin.** October 1972.

This article describes the development and implementation of a planning-programming-budgeting system (including the design of learner skills, objectives, performance criteria, criterion-referenced tests, and ccsts by program) holds great promise for school administrators. With expanded usage of PPBS in school districts, principals in particular will be able to employ factual data in making decisive judgments about the content and accountable direction of education in their schools.

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